THOMAS R. TRAUTMANN

KAUṬILYA AND THE ARTHAŚĀSTRA

A STATISTICAL INVESTIGATION
OF THE
AUTHORSHIP AND EVOLUTION OF THE TEXT

KAUṬILYA AND THE
ARTHAŚĀSTRA

KAUṬILYA AND THE ARTHAŚĀSTRA

A STATISTICAL INVESTIGATION
OF THE
AUTHORSHIP AND EVOLUTION OF THE TEXT

BY

THOMAS R. TRAUTMANN

WITH A PREFACE BY

A. L. BASHAM

891·2

T K

4142

FOR MARCELLA

TABLE OF CONTENTS

PREFACE

I am very pleased and honoured to be asked by Dr. Trautmann to write a brief introduction to his pioneering work on the stylistic analysis of the *Arthaśāstra*. I have special reasons for satisfaction, in that I may have stimulated its author to take up this particular field of research. Other than that I can claim little or no credit, since the complex mathematics involved in the minute analysis to which Dr. Trautmann has subjected his text take me far beyond my depth.

Possibly this book really began, as a thought in the mind of its author, in 1962. In that year I visited the University of Wisconsin to give a summer course of lectures on early Indian history and culture. There I met Dr. Trautmann for the first time. He had, as far as I remember, just completed his bachelor's degree, but he showed himself to be among the most intelligent students in a class which included many graduates. In the course of my lectures I spoke of the *Arthaśāstra*, mentioned my doubts as to whether it was the work of a single hand, and suggested the possibility that the new technique of stylistic analysis with the aid of a computer might solve many problems concerning its date and authorship. Some time later Mr. Trautmann came to London to work under my supervision for a doctoral degree. After successfully passing his qualifying examination he told me that for his research topic he wished to analyse the *Arthaśāstra* with the aid of a computer. I had some doubts as to the feasibility of such a project for a Ph. D. course, but Tom's ability and enthusiasm made me think that he was capable of seeing the task through, and so I gave his project my approval. With the aid of mathematicians of other colleges of the University he quickly mastered the very difficult matematical aspects of the subject, and after some years of very strenuous work he produced a thesis, which, I am fully confident, forms one of the most important contributions to the study of early Indian texts since the end of the second World War.

The technique employed by Dr. Trautmann in proving that the *Arthaśāstra* as a composite text is a difficult one and involves complex mathematics beyond the range of the ordinary Indologist. Previous discoveries made by this method are outlined by Dr.

Trautmann in the body of the book. The basic proposition on which the whole technique depends is a simple one. It may appear that a writer's style changes as he grows older and more experienced. This is often true where the more obvious stylistic features are concerned. But certain characteristics of his style, not so easily detected, remain constant throughout his life. Among such characteristics are the average length of his sentences, the frequency with which he uses simple particles and conjunctions such as 'and', and the frequency of the occurrence of compound words. We may have our doubts about this, but the fact remains that it has been checked many times on a wide scale with the work of known authors written over a long period of time, and it appears to be virtually infallible. It has been tested in numerous languages, both classical and modern, and it seems valid for all of them. Thus this is not a matter of opinion but a fact which can be established statistically and hence there is little basis for questioning Dr. Trautmann's conclusions, unless his mathematical framework can be shown to be faulty, which, in view of the fact that he had expert advice and help in this respect, is very unlikely. He has proved with something approaching certainty that the *Arthaśāstra* is a compilation, containing the work of at least three hands.

This discovery may well meet with resistance in certain quarters. The position as regards Indological studies at the present time is rather similar to that of Biblical studies in the latter part of the last century. In those days many Biblical scholars were already quite convinced that the Book of Genesis was a compilation of at least two sources, and that the Gospel according to St. Luke was produced by bringing together at least three earlier documents. All the evidence went to prove that the books ascribed to Moses were not actually written by him, but were compiled centuries later. This destructive "higher criticism" was very strongly resisted by scholars of the older school. It has now triumphed and the propositions that the earlier books of the Old Testament are not in fact the work of Moses, and that the Gospels are not the direct records of the disciples who are supposed to have written them, would now be accepted by all scholars and by nearly all educated Christians. We must recognise once and for all that writers in the ancient civilizations did not have the same concept of authorship as we have today. Because the unnamed Jewish priests who compiled their ancient material into the five Books of the Law believed that

they were doing the sort of thing which Moses might have done and were carrying on the traditions of Moses, they ascribed the author-ship of the works to Moses himself. Similarly older material which seemed to be in the Confucian tradition was gathered together by Chinese editors and was given to the world as the work of Con-fucius. We need not accuse the unknown personage who, probably at some time early in the Christian era, compiled the *Arthaśāstra* as we have it, of deliberate fraud when he ascribed his compilation to the traditional master of Indian statecraft, Kauṭilya. He was merely doing what many writers in all parts of the ancient world had done before him, and would do after him. He was not a fraud or a deceiver, he merely followed the almost universally accepted literary conventions of his day and age.

The prospects opened by this pioneering study are many. Before Dr. Trautmann commenced this study, a small start had been made on the *Mahābhārata* by R. M. Smith of Toronto, who, working without the help of a computer, studied some of the interpolations in the epic by this method. A detailed statistical analysis of the whole epic by computer, though it would be a lengthy and tedious process, and would involve very careful programming, is by no means beyond the bounds of possibility, and it might yield very definite results, making it possible to extract a nuclear *Mahābhārata* from the mass of interpolated material. Interesting results might be achieved by analysing the hymns of the *Ṛg Veda* by this method. The Pāli canon, or certain specific books of it, also suggest them-selves. Statistical analysis by computer has made it possible to establish with some degree of accuracy the various strands which go to make up a compiled text, of which there are many in the early literature of India. There is no doubt that in future much more will become known about early India, and a much clearer chronology will emerge, as a result of this technique, which Dr. Trautmann has used in the field of Indology for the first time.

To a historian the results may appear at first destructive. But the edifice which successive generations of Indian historians have built rests on very shaky foundations. Many periods and aspects of the history and culture of early India need re-thinking in the light of archaeology and textual criticism of this kind. Out of works such as this one there may emerge new schools of early Indian history and culture, which will present a far clearer and more credible picture than that which has already become traditional. For these

reasons I commend the work of Dr. Trautmann to all those who are interested in the culture of India. It may not be easy reading on every page, but it blazes a trail for future Indologists to follow. If they are honest and sincere scholars they will follow that trail wherever it leads them.

A. L. BASHAM

ACKNOWLEDGEMENTS

Professor A. L. Basham has compounded my already enormous debt to him by writing a Preface both highly flattering to me and excessively modest of his own part in this book. Not only was it inspired by his remarks on the authorship of the *Arthaśāstra* made at the University of Wisconsin in 1962, but the genesis of this book owes as much to Professor Basham's expert guidance and warm encouragement while he was my Ph. D. supervisor at the School of Oriental and African Studies in the University of London. Even after his departure for Australian National University he continued with characteristic generosity to aid my work by mailing his criticisms of the drafts I sent him. The section on the Classical tales of Candragupta and the Nanda in particular was turned on its head as a result of his Antipodean comments, and the opening chapters generally derived a great deal from his profound knowledge of ancient Indian history while he was still in London. Professor Basham's friendly accessibility and goodheartedness, qualities all too rare in the academic world, have been a boon to me as his student and an inspiration as a teacher. I publically acknowledge my debt to him not in order to shift onto his shoulders (or those of the many others who have helped me) the responsibility for the faults of this book, but as an expression of my sincere gratitude.

To that excellent epigrapher, Dr. J. G. de Casparis, Reader in the Early History of South and Southeast Asia at SOAS, who became my supervisor after Professor Basham left for Canberra, I owe my thanks for his help in seeing my thesis, out of which this book has grown, to a conclusion.

Professor Padmanabh S. Jaini, formerly of SOAS, now of the University of Michigan, has helped me over several Pali passages in Chapter 2 with his profound and vivid knowledge of that language. In dealing with the Classical stories of Candragupta I have been helped by Professor David J. A. Ross of Birckbeck College.

I am greatly indebted to Dr. Michael Levison, whose willingness to spend long hours constructing the program for extracting data from Sanskrit texts by computer, to advise and correct my own otherwise untutored efforts to program, and generally to guide the most laborious side of my work without reward and at considerable

expense of time has always astonished and gratified me. I wish also
to thank Dr. Levison's staff in the Department of Computer Science,
Birckbeck College, for their assistance, especially the appropriately
named Mr. Alan Sentence, who prepared my punched versions of
Sanskrit texts for magnetic tape. I am grateful to the Reverend
A.Q. Morton of Culross, Fife, whose statistical methods I have
adapted to my own purposes, for many hints and aids, and to
Professor R. Morton Smith of the University of Toronto, for the
kind loan of some of his statistical studies.

I have greatly benefitted from the criticisms and suggestions of
Professor D. R. Cox of the Department of Mathematics, Imperial
College, on my handling of statistical matters at various stages of
the research. More than that, the fact that I found the courage—
the temerity, it may be—to venture into statistics is largely due
to the kindness with which Professor Cox treated my amateur
efforts, both my early pilot study and the work that has issued
from it. I want also to thank his student, Dr. Osborne Jackson, for
his help in the analysis of sentence- and compound-length data.

But for the generous offer of Professor J. Duncan M. Derrett
of SOAS to lend me a typescript of the Bhāruci manuscript in his
possession which he is editing for publication, I could not have
written Chapter 6. To Herr Dr. Dieter Schlingloff, Privat-Dozent at
the University of Göttingen, I am grateful for the unexpected and
timely arrival of an offprint which set me on the problem of the
relations of the *Arthaśāstra*, Bhāruci and Medhātithi, though
arriving at conclusions antagonistic to his, in the light of the un-
published Bhāruci text which, unfortunately, Dr. Schlingloff had
not seen.

I was very fortunate that Dr. John Pinsent of the Department
of Greek, University of Liverpool, arrived in Ann Arbor as Visiting
Professor of Roman History as I was revising the last chapter. His
rigorous criticisms of my attempts to reformulate the argument for
the date of *Arthaśāstra*, Book 2, from the name for Ceylon, led me
to see the evidence in a new and I believe more satisfactory light.

I have benefitted as well from communications—all too brief—
with several scholars. Professor Gautam N. Dwivedi of K. N.
Government College, Gyanpur, on the geographical data in the
Arthaśāstra and its relations to Manu; Dr. Barend A. van Nooten
of the University of California, Berkeley, on the statistical analysis
of meter in the *Mahābhārata*; and the excellent *arthaśāstrin*, Herr

Dr. Friedrich Wilhelm, Privat-Dozent at the University of Munich, concerning the relations of the *Arthaśāstra* and the *Kāmasūtra*, on which we had reached similar conclusions independently.

My thanks are due to the staff of the Library of SOAS, the British Museum Oriental Reading Room and the India Office Library for their assistance, and especially to Miss B. V. Nielson of the Royal Asiatic Society, the unsung heroine of a neglected library, to whom I am grateful not only for bibliographical help but for the many cups of tea with which she kept me thawed while working there.

To the Misses Daphne Pulham and Nirmala Pishawadia of the History Department Office of SOAS I owe thanks for secretarial work.

To the authorities of SOAS I am thankful for a small grant in a time of need.

The commercial punching of some of the texts onto paper tape was made possible by a grant from the Central Research Fund of the University of London. Funds for publication are derived in part from the income on the endowment of the Horace H. Rackham School of Graduate Studies, of the University of Michigan.

I take the liberty traditionally granted an author in his first book, of thanking my earlier teachers from highschool and college for their encouragement, of whom I wish specially to mention Dr. Theodore N. Savides, historian; Professor Robert H. Irrman, historian; Professor Frederic White, historian *malgre lui*; and Dr. Charles P. Sequin, who nurtured my feeble ability in mathematics. Professor John W. Spellman, now of the University of Windsor, although not a teacher of mine, encouraged me to take up ancient Indian history at a critical juncture, for which I shall always be grateful.

Finally, my best thanks to my dear wife Marcella, not only for humoring my horror of composing at the machine by typing the drafts at every stage through thesis and book, and for suffering my peevishness and sustaining my spirits during its long gestation, indispensible though these things were, but for felicities unspoken.

I would gladly go on passing out bouquets to those who have helped me over the years, but an end must be made, and I do so with a general thanks to those unnamed. And so, to other tasks:

For Monday comes when none may kiss.

THOMAS R. TRAUTMANN

Ann Arbor
Sunday, 23 November, 1969

ABBREVIATIONS

Arth.	*Arthaśāstra* (Kangle's edition, unless otherwise indicated).
Bhār.	Bhāruci's commentary, *Manuśāstra-Vivaraṇa*, on *Manu-smṛti*.
CHI	*Cambridge History of India*, vol. 1, reprint, 1962.
Derrett, Derr.	J. Duncan M. Derrett: "A Newly-discovered Contact between Arthaśāstra and Dharmaśāstra: the Role of Bhāruci", *ZDMG* 115, 1965, p. 134 ff.
DPPN	G. P. Malalasekera: *Dictionary of Pāli Proper Names*.
Ghar.	*Manusmṛti with the Bhāṣya of Bhaṭṭa Medhātithi*, ed. J. R. Gharpure.
IHQ	*Indian Historical Quarterly*.
JA	*Journal Asiatique*.
JAOS	*Journal of the American Oriental Society*.
Jha	*Manu-Smṛti with the 'Manubhāṣya' of Medhātithi*, vol. 2, ed. Ganganatha Jha.
Jha (*Notes*)	Ganganatha Jha: *Manu-Smṛti: Notes. Part I: Textual.*
Jolly-Schmidt	*The Arthaśāstra of Kauṭilya*, ed. J. Jolly and R. Schmidt.
JRAS	*Journal of the Royal Asiatic Society*.
Kām.	*Kāmasūtra* of Vātsyāyana (Dāmodara Sāstri's ed.).
Kangle, Part 1	*The Kauṭilīya Arthaśāstra*, Part 1, A Critical Edition with a Glossary, ed. R. P. Kangle.
Kangle, Part 2	*Ibid.*, Part II, An English Translation with Critical and Explanatory Notes.
Kangle, Part 3	*Ibid.*, Part III, A Study.
Keith	A. Barriedale Keith: *A History of Sanskrit Literature*.
KN	*Kāmandakīya Nītisāra* (T. Ganapati Sastri's ed.).
KSS	*Kathāsaritsāgara* of Somadeva (ed. of Durgaprasad *et al.*).
KSS trans.	*The Ocean of Story* (Somadeva's *Kathāsaritsāgara*), trans. C. H. Tawney.
Lacôte	Félix Lacôte: *Essai sur Guṇāḍhya et la Bṛhatkathā*.
Mand.	*Mānava-Dharma-Śāstra. Institutes of Manu, With the Commentaries of Medhātithi . . .*, ed. Vishvanath Narayan Mandalik.
MBV	*Mahābodhivaṃsa* (PTS ed.).
Medh.	Medhātithi's commentary, *Manubhāṣya*, on the *Manusmṛti*.
Meyer	*Das altindische Buch von Welt und Staatsleben: Das Arthaçāstra des Kauṭilya*, trans. J. J. Meyer.
MṬ	*Mahāvaṃsa Ṭīkā* (*Vaṃsatthappakāsinī*, PTS ed.).
MV	*Mahāvaṃsa* (PTS ed.).

MW	Monier Monier-Williams: *A Sanskrit-English Dictionary.*
O.S.	*Oriental Series.*
PHAI	Hemachandra Raychaudhuri: *Political History of Ancient India*, 6th ed.
PP	*Pariśiṣṭaparvan* of Hemacandra (*Sthavirāvalīcarita*, Jacobi's, 2nd. ed.).
PTS	Pali Text Society.
PTS Dict.	T. W. Rhys Davids and William Stede: *The Pali Text Society's Pali-English Dictionary.*
SBE	*Sacred Books of the East.*
Schlingloff	Dieter Schlingloff: "Arthaśāstra-Studien", *Wiener Zeitschrift für die Kunde Süd- und Ostasiens*, 9, 1965, p. 1 ff.
SKPAW	*Sitzungsberichte der königlichen preussischen Akademie der Wissenschaften.*
S.S.	*Sanskrit Series.*
TSS	*Trivandrum Sanskrit Series.*
ZDMG	*Zeitschrift der deutschen morgenländischen Gesellschaft.*
ZII	*Zeitschrift für Indologie und Iranistik.*

CHAPTER ONE

KAUṬILYA AND THE *ARTHAŚĀSTRA*

It is now 65 years since an anonymous pandit handed over a manuscript of the *Kauṭilīya Arthaśāstra* to R. Shamasastry, chief librarian of the Mysore Government Oriental Library. The world of scholarship is greatly indebted to Shamasastry for having recognized the importance of this text; for having published by installments an English translation of it in *Indian Antiquary* and the *Mysore Review* between 1905 and 1909; for having published the text itself in 1909, going into further editions in 1919, 1924, and, since his death, in 1960; and for having completed and published an English translation in 1915 which has gone into six editions.

Since Shamasastry's *editio princeps* several editions of the text have appeared: In 1923-4 a new edition with extensive notes by Julius Jolly and Richard Schmidt appeared in the *Punjab Sanskrit Series*, based on a copy of a manuscript in Malayalam script acquired by the Staatsbibliothek of Munich. In 1924-5 a three-volume edition, based chiefly on the original of the Munich manuscript of the Jolly-Schmidt edition, with Sanskrit commentary by MM. T. Ganapati Sastri, was published in the *Trivandrum Sanskrit Series*. The monumental German translation of J.J. Meyer belongs to the same period (six parts, 1925-6), as do the three volumes of *Kauṭilīya Studien* by Bernhard Breloer (1927-34).

Since the Second World War there have been two events of the first importance for the textual study of the *Arthaśāstra*: the discovery of the only known northern manuscript of the text (in Devanagari) at Patan Bhandar in Gujarat, published by Muni Jina Vijay in 1959; and the appearance in 1960 of a critical edition of the text, the work of Professor R. P. Kangle. Kangle's edition, taking account of all the manuscripts and commentaries now available, and executed with a thoroughness and accuracy sometimes wanting in previous editions, has put the study of the text on an altogether firmer footing than it has had hitherto, and will not be substantially improved upon until more manuscripts turn up, if then. It has been followed by an annotated English translation

1

(1963) which, drawing as it does on some five decades of research on the *Arthaśāstra* by Indian and Western scholars, has already become the standard, and by a study (1965) which provides an excellent survey of the *Arthaśāstra* and a summary of research on it.

The bulk of scholarly literature that has grown up round the *Arthaśāstra* since its rediscovery gives some measure of the interest and even excitement it has aroused. Kangle lists 10 different publications containing the text and commentaries, not counting further editions; 19 translations into 13 languages, including English, German, Italian, Russian, and various Indian languages; 11 books devoted solely to aspects of the *Arthaśāstra,* one of these being Breloer's three volumes; 45 books dealing in part with the *Arthaśāstra,* including the literature on ancient Indian political thought and institutions which its publication inspired; and 96 articles of particular points of *Arthaśāstra* scholarship.[1] Since the publication of Shamasastry's edition in 1909 an average of almost two articles of importance and rather more than one book concerned in part or in whole with the *Arthaśāstra* has appeared every year.

It is not difficult to account for the interest generated and the attention received by the *Arthaśāstra*. The main Indological concerns of the 19th century, philology apart, had been myth, religion and philosophy. The picture of a changeless India, its inhabitants preoccupied with meditation and metaphysical speculation, neither experiencing history nor writing it, prevailed; and no one was able to gainsay the remark of Max Müller that "The Hindu enters this world as a stranger; all his thoughts are directed to another world; he takes no part even where he is driven to act; and when he sacrifices his life, it is but to be delivered from it."[2] The rediscovery of the *Arthaśāstra* proved a corrective to this notion, and within two decades over a dozen Indian scholars, and a few Western, had written books on ancient Indian political theories and institutions as if in direct response to Max Müller's dictum. None of these works or those which have subsequently appeared could have been written had the *Arthaśāstra* remained unknown.

The growth of scholarly interest in ancient Indian politics and history itself had causes, of which the most fruitful for *Arthaśāstra*

---

[1] Kangle, Part 3, p. 285 ff.
[2] *A History of Ancient Sanskrit Literature,* p. 18.

studies was the nationalist movement of India. Hermann Jacobi, writing in the *Sitzungsberichte der königlichen preussischen Akademie der Wissenschaften* in 1912 (an article which gained an Indian public when it was translated and published in *Indian Antiquary* for 1918), called Kauṭilya 'the Indian Bismarck'. A. Barriedale Keith, the Scots indologist and constitutional lawyer, writing two years after the outbreak of the First World War, was decidedly not taken by the comparison; [1] but the expression found a receptive audience in India, and enjoyed a considerable vogue in scholarly literature. Nationalist aspirations seemed somehow fortified when the existence of strongly centralized empires and native schools of political theory was shown. On the other hand, to Vincent Smith the lesson of history was that India was most blessed when under a strong imperial rule, and the *Arthaśāstra* confirmed him in this belief. [2] Nationalism, a powerful stimulant but often a baleful influence in historical scholarship, has doubtless relaxed its hold on *Arthaśāstra* studies since Independence, though not entirely. [3]

But to a large extent the reasons for the scholarly stir about the *Arthaśāstra* may be found in the work itself. It holds a special position as the earliest extant work of its kind, to which all later *arthaśāstras* are indebted; and besides its primacy in time, it is more extensive and fully worked out than any of its successors. It is, in its legal portions, a valuable source for the study of *dharmaśāstra*. Most importantly, it is a rich store of information on numerous aspects of ancient Indian life. In the judgement of Moritz Winternitz, "The *Kauṭilīya Arthaśāstra* is a unique work, which throws more light on the cultural environment and actual life in ancient India than any other work of Indian literature." [4]

Winternitz goes on to say, "This book moreover would be of truly incalculable value if, as previous scholars have accepted, it really has as its author the minister of the famous king Candragupta

---

[1] Keith, *JRAS*, 1916, p. 131: "Kauṭilya was not Bismark, and India is not Germany."

[2] See Johannes Voigt's excellent article on the *Arthaśāstra* and the nationalist movement, "Nationalist Interpretations of Arthaśāstra in Indian Historical Writing", *St. Antony's Papers*, no. 18, South Asian Affairs, no. 2, 1966.

[3] Prof. Gautam N. Dwivedi observes, "Patriotic sentiment favours at least a respectable antiquity for K(auṭilya)." *Agra University Extension Lectures*, Agra, 1966, p. 8.

[4] *Geschichte der indischen Litteratur*, vol. 3, p. 517.

Maurya and were it to be regarded as a work of the fourth century B.C. It would in that case be the first and only firmly dated product of Indian literature and culture from so early a time." [1] When a peasant finds an ancient coin and sells it in a distant bazaar, half the information it could yield to a numismatist is destroyed; similarly, when a piece of literature cannot be dated within limits suitable to his purpose, its value to the historian is greatly diminished. It is over the dating of the *Arthaśāstra* and its ascription to Kauṭilya (alias Cāṇakya, alias Viṣṇugupta) that the fiercest controversies have raged. What is the basis of this ascription, and what reason is there to doubt it?

There are four passages in the work itself which make the ascription. At the end of the very first chapter (I.I.19) we read, "Easy to learn and understand, precise in doctrine, sense and word, free from prolixity of text, thus has this treatise been composed by Kauṭilya." At the end of the work we are told, "This science has been composed by him, who, in resentment, quickly regenerated the science and the weapon and the earth that was under the control of the Nanda kings" (15.1.73). There follows, after the colophon, a verse (marked as a later addition in Kangle's text) which says, "Seeing the manifold errors of the writers of commentaries on scientific treatises, Viṣṇugupta (i.e. Kauṭilya) himself composed the *sūtra* as well as the *bhāṣya*." Finally, the chapter on edicts ends with the statement, "After going through all the sciences in detail and after observing the practice (in such matters), Kauṭilya has made these rules about edicts for the sake of kings" (2.10.63). There are, in addition, numerous places in which the opinion of Kauṭilya is given, oftenest in retort to the quoted opinions of predecessors, with the expression *iti Kauṭilyaḥ*, 'thus says Kauṭilya' or *neti Kauṭilyaḥ*, 'Not so, says Kauṭilya'. Only one Kauṭilya is known to literature, of whom the Purāṇas say, "A brahmin, Kauṭilya, will uproot them all (i.e. the Nandas) and, after they have enjoyed the earth one hundred years, it will pass to the Mauryas. Kauṭilya will anoint Candragupta as king in the realm." [2] Clearly, the presumption must be that this is the author of the *Kauṭilīya Arthaśāstra*.

Why then has this ascription been challenged? To begin with,

---

[1] The same.

[2] F. E. Pargiter's ed., pp. 26-8, trans. (with slight alterations) pp. 69-70.

the passages mentioned are not sufficient testimony in support of
Kauṭilya's authorship. All are terminal verses, of a sort easily added
in later times. Kangle is almost certainly right in regarding one of
them, the very last verse of the work, as such an addition, because
it is in a metre otherwise unknown to the work (*āryā*), because it
follows the final colophon and because it is the unique instance of
the personal name Viṣṇugupta rather than the *gotra* name Kauṭilya
in the *Arthaśāstra*. The use of the expression *iti Kauṭilyaḥ* to con-
clude quotations, or *neti Kauṭilyaḥ* to contradict them, is in-
conclusive, for while these could be cases of third-person self-
reference by Kauṭilya himself, they could also be devices used by
a later hand to quote the opinions of a venerated predecessor,
judging by parallel expressions in other works.

Objections to the ascription of the *Arthaśāstra* to Kauṭilya have
been many and detailed; I shall mention only the more salient. The
agreement between the *Arthaśāstra* and the Megasthenes fragments,
a major source for the Mauryan period, is nowhere very good or
detailed and, while the *Arthaśāstra* has been of aid in elucidating
the Aśokan inscriptions, few strong points of agreement on matters
specific to the age have emerged.[1] The *Arthaśāstra* presumes the
use of Sanskrit in royal edicts in any case, and Sanskrit inscriptions
do not become general in northern India until the Gupta period.[2]
The book contains no reference to the Mauryas or their capital
Pāṭaliputra and seems to presume a number of small states strug-
gling for hegemony rather than a large empire.[3] Its geographical
horizons are broader than seems likely for the Mauryan period, and
a number of place-names in the second book are late: Cīna for
China (2.11.114) is thought to have originated only after the Ch'in
dynasty extended its dominion over the whole of China in 221 B.C.;
whereas Tāmraparṇi in the Aśokan edicts refers to Ceylon, in the
Arthaśāstra it refers to a river in South India (2.11.2), Ceylon being
here called Pārasamudra (2.11.28-59), while the *Periplus of the
Erythrean Sea* refers to Ceylon as Palaesimundu, "formerly called
Taprobane"; coral from Alakanda must be the Mediterranean red
coral of Egyptian Alexandria which Pliny remarks was as highly
prized in India as were pearls in Rome, the trade with Rome scarcely

---

[1] See especially O. Stein: *Megasthenes und Kauṭilya*, Vienna, 1921,
passim.

[2] Stein, *ZII* 6, 1928, p. 45 ff.

[3] E.g. Jolly in Jolly-Schmidt, p. 42.

dateable before the first century A.D.; Hārahūraka (2.25.25) and Prājjūṇaka (or rather the *v.l.* Prāgghūṇaka, 3.18.8) probably refer to the Hūṇas, Huns, not known in India before the late fourth century A.D.[1] Greek loanwords have been pointed out, the most notable being *suruṅgā*, 'underground passage, tunnel', to be derived from Greek σῦριγξ, first noted in Polybius, c. 180 B.C.[2] The legal portions of the *Arthaśāstra* (Books 3 and 4) show many correspondences with passages in the *Yājñavalkya Smṛti* and it is asserted that the *Arthaśāstra* is more likely to have borrowed from the *dharmaśāstra* than *vice-versa*; Jolly argues, indeed, that the *śāstras* of *artha* and *kāma* were developed later than the *dharmaśāstra*, under the influence of the *trivarga* scheme.[3] The strong affinity of Vātsyāyana's *Kāmasūtra* to the *Arthaśāstra* shows that no long interval separates the two, and though the *Kāmasūtra* cannot be firmly dated, it is usually assigned to the fourth century A.D.[4] No work antedating the Christian era mentions Kauṭilya as author or unmistakably quotes from the *Arthaśāstra*; indeed, the earliest such works (the *Pañcatantra* and Āryaśūra's *Jātakamālā*) are probably of the Gupta period or at most just previous.

To all of these arguments, objections have been raised. The testimony of Megasthenes, for instance, is fragmentary, in part fabulous, and, on several points of detail, such as the six boards of five governing the military, highly dubious. The *Arthaśāstra* deals in typical or ideal situations, and so its lack of reference to the specificities of the Mauryan empire signifies nothing. The arguments from geographical data and the supposed presence of Greek loanwords are more or less vulnerable to criticism. The dependence of *arthaśāstra* on *dharmaśāstra* has been questioned on the basis of an attractive alternative theory, according to which the eighteen titles of law and the theory of royal administration originated in royal, *arthaśāstra* circles and was incorporated into the *dharma smṛtis* as *vyavahāra* and *rājadharma*, together with mate-

---

[1] For a summary of the geographical arguments, see Gautam N. Dwivedi, "The Age of Kauṭilya", *Agra University Extension Lectures*, Lecture 2, Agra, 1966. I discuss them below, Chapter 7.

[2] Stein, *ZII 3*, 1925, p. 280 ff., English abstract by Winternitz, in *IHQ 1*, 1925, p. 429 ff. This etymology is debated. Mayrhofer derives *paristoma* (2.11.98, a kind of blanket) from Greek περίστρωμα (*Kurzgefasstes etymologisches Wörterbuch des Altindischen*).

[3] Jolly-Schmidt, pp. 12-21.

[4] The same, pp. 24-30.

rial on brahmanical (ritual) law from the older *dharma sūtras*.

In addition to such criticisms, those who support the ascription to Kauṭilya of the *Arthaśāstra* add more positive arguments in favour of their view by identifying archaisms in the text. These may be stylistic or linguistic (gerunds in *-tva* in coumpound verbs, Prakritisms, archaic terms), or they may deal with points of law (the *Arthaśāstra* permits widow remarriage and divorce on grounds of incompatability) or matters such as coinage (the *Arthaśāstra* appears to be speaking of punch-mark coins, certainly not the Greek portrait coins or the *dīnāras* of Roman provenance or inspiration).

The debate continues. After six decades of scholarship there has been no general agreement on the date or authorship of the *Arthaśāstra* or even on any of the major points at issue. Some seven centuries, from the time of Candragupta Maurya through the fourth century A.D., separate the opposite poles of this debate. The only point on which there has been a large measure of agreement, tacit or express, is that the *Arthaśāstra*, though drawing on older works, has a single author. Jolly, no proponent of the traditional ascription of the *Arthaśāstra*, has said, "The arrangement of the subject-matter is very careful and a rare unity of plan and structure pervades the whole work, with an exact table of contents at the beginning, a list of particular devices used at the end and many cross-references being scattered through the body of the work to which may be added the 32 references to previous chapters in the last *Adhikaraṇa*." [1] "The whole work... is likely to have been composed by a single person, probably a Pandit belonging to a school of Polity and law...." [2] More recently Louis Renou, referring to the way in which the text is enclosed between the table of contents in the first chapter and the *Tantrayukti* or analysis of rhetorical figures in the final chapter, has said, "This enclosure attests the wish of Kauṭilya to compose a work which was coherent, closed to all additions, very advanced, in sum, from former treatises which in general possessed neither introduction nor conclusion and seemed to have been made up of successive layers. In short, it confirms the presence of an author." [3] Professor Renou has elabora-

---

[1] Introduction to Jolly-Schmidt, p. 5.
[2] The same, p. 44.
[3] "Sur la forme de quelques textes sanskrits", *JA 248*, 1961, p. 184.

ted his meaning in a note: "While it is a strongly composed work'
revealing the presence of a single author, the *Kauṭilīya* has had to
integrate materials of earlier provenance, as the archaisms of
vocabulary and language reveal... It does not follow that a passage
has been composed in a certain period (under the Mauryas, let us
say), nor that the work had undergone a second, amplified edition
very much later: that is undemonstrable and perfectly im-
probable." [1]

Not only has unity of authorship been assumed, but inferences
about the author's personality have been made from the text, and
compared with the traditions concerning Kauṭilya. Jacobi, elucida-
ating the verse which follows the final colophon of the *Arthaśāstra*,
mentioned above, said, "The sense of Kauṭilya's words very
probably is that he is vexed over the narrow-mindedness of his
predecessors, and that he has without a moment's hesitation (*āśu*)
thrown overboard their dogmatism: it implies the sense of contempt
in which the 'Professors' are held by the statesman, which even
Bismark was at no pains to conceal." This is further illustrated in
the 'polemical' portions of the work. "The agreement obtaining
between the words of Kauṭilya and the character of his work, and
the personality that characterises them would be difficult to under-
stand, if those were not the very words of the author." [2]

Kangle writes of the 'polemical' portions in a similar vein:

> We do not have in this work a mere juxtaposition of the views of
> different authorities including the one claiming to be the author of
> the entire work, but almost invariably a resolute assertion, in a
> controversial tone, of this person's opinion against those of others
> which are rejected as unacceptable. This reflects a rather un-
> usual temperament in an author, implying impatience with
> the opinions which the author considers to be wrong and an
> eagerness to assert his own opinions in their place. Such indeed was,
> according to tradition, the temperament of Kauṭilya, who, in his
> intolerance of injustice and wrong, is said to have destroyed the
> ruling Nanda dynasty and placed his own protégé on the throne in
> their place. [3]

It is not my purpose to review each point of controversy over
the age and authorship of the *Kauṭilīya Arthaśāstra*, thus prolonging
a debate so long barren of consensus. The prospects of reaching

---

[1] *JA 248*, 1961, p. 194 n. 6.
[2] Jacobi, *SPKAW*, 1912, pp. 847-8; trans. *IA 47*, 1918, p. 194.
[3] Kangle, Part 3, p. 102.

anything like universal agreement, of finding compelling arguments along the lines the debate has proceeded so far seem faint. Perhaps the assumption of unique authorship, so widely held, requires investigation. Perhaps the complex structure of controversy built up over six decades rests on inadequate foundations. Certainly further progress will not be made through the further elaboration of arguments conceived for the most part in the 1910's and the 1920's.

In this book I address myself only to those problems to the resolution of which I believe I can contribute. Much has been said about the legend of Cāṇakya, but its literary history has not been systematically studied, and this, with certain conclusions about its historicity, forms the subject of the second chapter. The central chapters (3-5) present the results of a stylistic analysis of the prose portions of the *Arthaśāstra*, to determine whether the assumption of unique authorship is justified. Chapter 6 deals with the relation of the *Arthaśāstra* and two commentaries on Manu, the *Vivaraṇa* of Bhāruci and the *Manubhāṣya* of Medhātithi, which has a bearing on the question of the sources of the *Arthaśāstra*. The final chapter summarizes the results of these researches and takes a fresh look at the date and authorship of the *Kauṭilīya Arthaśāstra*.

CHAPTER TWO

THE *CĀṆAKYA-CANDRAGUPTA-KATHĀ*

To say that the *Arthaśāstra* is ascribed to an historical character is to strain the term 'historical'. Rather, Kauṭilya, or Cāṇakya as he is more generally called, is a figure of legends which assign him an historical role; the historicity of the person, and much more so of his role, is a matter of some doubt. This question must be considered prior to the question of the ascription of the *Arthaśāstra*, and can easily be separated from it. For to legend he is known as Cāṇakya, while in his character as author of an *arthaśāstra* he is generally referred to by his *gotra* name, Kauṭilya. It is true that one of the four Indian versions of the legend, the *Mudrārākṣasa*, refers to 'Kauṭilya the cunning',[1] but this derives from its author's knowledge of *arthaśāstra*, not legend, and Cāṇakya is the name he employs throughout. The other exception to this generalization is the *Purāṇas*, which summarize Kauṭilya's career in a single verse.[2] The purpose of this chapter, then, is to study what legend tells us of Cāṇakya; in a later chapter we shall consider what literature tells us of Kauṭilya.

The legends concerning Cāṇakya are preserved to us in works which for the most part must be dated during or after the Gupta empire and thus are separated from the times to which they refer by many centuries, in some cases by more than a millenium. Nevertheless two versions which can be presumed to be independent show sufficient similarity to permit us to posit the existence of a popular cycle of tales concerning Nanda, Cāṇakya and Candragupta, a '*Cāṇakya-Candragupta-Kathā*', from which these and other versions were drawn. These two versions, the Pali and the Jain, will be analyzed first, followed by a consideration of the Kashmirian version, as preserved by Somadeva and Kṣemendra, and then the *Mudrārākṣasa* of Viśākhadatta and its ancillary literature. Next I will give a summary of my conclusions regarding these four versions and the contents of the primitive *Cāṇakya-Candragupta-Kathā*. Then I shall examine the Classical version which is at once the

---

[1] *Kauṭilyaḥ kuṭilamatiḥ*, 1.7.
[2] See above, ch. 1.

earliest notice and the most garbled telling of the legend. Finally I shall attempt to assess the historicity of the story.

The Pali Version

Neither Cāṇakya nor Candragupta are known to the earliest work of the Ceylonese chronicle literature that remains to us, the *Dīpavaṃsa*, but they are both mentioned in the *Mahāvaṃsa*, and the legend is given in some detail in the commentary thereto, the *Vaṃsatthappakāsinī* or *Mahāvaṃsa Ṭīkā* as I shall henceforth refer to it.

The story of the origin of the nine Nandas need not detain us.[1] Suffice it to say the nine were brothers, that the eldest, born of obscure family in the marchland, was captured by robbers and soon became their chief. The eight brothers joined the band and the eldest, dissatisfied with the mean business of plunder, led them against Pāṭaliputra and captured the sovereignty. The nine ruled in succession for a total of twenty-two years. Their names are given in the *Mahābodhivaṃsa*.[2]

Only the youngest of the nine, Dhanananda, is named in the *Mahāvaṃsa Ṭīkā* and his story forms part of the *Cāṇakya-Candragupta-Kathā*.[3] He received his name ('Nanda the Wealthy' or 'delighting in riches') because he had become rich through hoarding wealth. After his anointment he was overcome with avarice (*macchariya-*); and when he had amassed 80 crores he secreted them in a hole in a rock in the Ganges. By taxing hides, lac, trees, minerals and so forth[4] he amassed a similar fortune and hid it as before; hence his name.

Then come two verses from the *Mahāvaṃsa*:[5] "When, filled with

---

[1] Commy. on *MV* 5.14, 15; *MṬ* 177.24-179.26.

[2] P. 98: Uggasena-, Panduka-, Paṇḍugati-, Bhūtapāla-, Raṭṭhapāla-, Govindasāṇaka-, Dasasiddhaka-, Kevaṭṭa-, and Dhana-nanda.

[3] *MṬ* 179.27 - 180.10.

[4] *Camma-jatu-rukkha-pāsāṇa-pavattāpana-karaṇādīhi*: ?'by (taxes) on hides, lac (or resins), trees, minerals (or stones) and (licensing) the opening of shops (*āpana*) and occupations'. Skt. *karaṇa* can take the sense 'traditional occupation of a caste'.

[5] *MV* 5.16 - 17:
> *Moriyānaṃ khattiyānaṃ vaṃsajātaṃ sirīdharaṃ |*
> *Candagutto ti paññātaṃ Cāṇakko brāhmaṇo tato ||*
> *navanaṃ Dhananandaṃ taṃ ghātetvā caṇḍakodhavā |*
> *sakale Jambudīpasmiṃ rajje samabhisiñci so ||*

Translation adapted from that of Wilhelm Geiger.

bitter hate, he had slain the ninth Nanda, Dhanananda, the brahmin Cāṇakka anointed him called Candagutta, born a khattiya of the Moriyas, possessed of the royal splendour, as king of Jambudīpa.'' In the gloss the *Ṭīkā* gives two etymological explanations of the name Moriya. According to the first, ''The splendour of the city in which they were raised gave them joy (*mod-*), and changing the letter 'd' to 'r' the word became Moriya; khattiya refers to their ancestral vocation.'' [1]

According to the second explanation, the Moriyas were a branch of the Sākiyas who, during the Buddha's lifetime, were all but exterminated by Viḍūḍabha (the son of king Pasenadi of Kosala whom the Sākiyans had grievously insulted). The Moriyas managed to escape to Himavant, where they built a well-walled city surrounded by a moat in a delightful place abounding in forests and rivers. The tiles of the buildings were of a blue the shade of a peacock's neck, which attracted the birds, so that the city became filled with the cries of peacocks (*mora*). Henceforth this people became known throughout Jambudīpa as Moriyas. This is a transparent attempt to link the family of the Buddha, the Śākyas, with that of Aśoka, the Mauryas.[2]

Following the gloss, the *Cāṇakya-Candragupta-Kathā* proper begins.[3] Before relating the tale, however, it is well to warn the reader that we are going to find in it inconsistencies which have an important bearing on the question of its affiliation to the Jain version.

Cāṇakka was a native of Takkasilā, the son of a brahmin, learned in the three *Vedas* and in *mantras*, skilled in political expedients (*upāyakusalo*), deceitful, a politician (*nītipuriso*). After his father's death he supported his mother. It became generally believed that he bore the marks of one deserving of the royal umbrella. On learning this his mother began to wail, for kings have no love for anyone, and she feared he would become king and neglect her. When he heard this Cāṇakka asked her where she thought this mark of royalty resided, and she told him it was his canine teeth; so out

---

[1] *MṬ* 180.16 ff.: *Moriyānan ti: attānaṃ nagarasiriyā modāpīti, ettha sañjātā ti, da-kārassa ca ra-kāraṃ katvā Moriyā ti; laddha-vohārānaṃ khatti-yānan ti attho.* The passage is somewhat corrupt.

[2] The only mention of the Moriyas of Pipphalivana in the Canon appears to be *Dīgha Nikāya* 2.166 where they claim a share of the Buddha's relics (*DPPN* s.v. Moriyā). This is likely to be unhistorical for the same reasons.

[3] *MṬ* 181.12 - 186.26.

of filial piety he broke the teeth and continued to care for his mother. And he was plagued by all manner of human afflictions, not only broken teeth, but also ugliness, crooked [1] feet and the like.

One day he went to Pupphapura to take part in a disputation, for Dhanananda had given up his obsession for stowing away riches, and the vice of avarice (- *macchera* -) had yielded place to the virtue of liberality. The king had constructed an almshouse and had arranged gifts for a crore of brahmins and a hundred thousand novices. When the almsgiving had begun Cāṇakka entered and sat down among the brahmins. When the king entered, accompanied by a large retinue, he was offended to see Cāṇakka seated amongst the brahmins of the assembly and ordered, "Throw this ugly brahmin out of here, and do not let him in again," in spite of the remonstrances of his alms-official. The king's men could not bring themselves to tell Cāṇakka to leave. He did so of his own accord, observing, "Kings are indeed difficult to approach." [2] He broke his sacred thread, dashed his drinking pot against the *Indakhīla* [3] and cursed the king: "May there be no welfare for Nandin to the four ends of the earth." [4] The king angrily cried, "Capture the slave, capture him." But Cāṇakka foiled his pursuers by adopting the guise of an Ājīvaka and went unnoticed in the very palace precincts, and the search was given up as fruitless.

Cāṇakka gained the friendship of Pabbata, the son of Dhanananda, whom he filled with ambitions to seize the throne and with the help of a signet ring which the prince got from his mother, fled the palace through a secret trapdoor to the Viñjhā forest. There, by a method the details of which are not given, he made eight *kahāpaṇas* out of every one and thus amassed 80 crores, which he hid. Searching about for another worthy to be king he came upon the youthful Candagutta of the Moriyas.

Candagutta's story is then related. His mother was chief queen

---

[1] *Vaṅka*: an allusion to the name Kauṭilya ? "The Dhtp 5 gives 'koṭilya' as meaning of *vaṅk*", PTS Dict., s.v. *vanka*.

[2] *MṬ* 182.26: *rājāno nāma durāsadā hontī ti*. Is a pun ('hard to sit on') intended ? The v. l. *kuddho* would be better than the *duṭṭho* of the same line as a gloss for Cāṇakka's attribute *caṇḍakodhavā* in *MV* 5.17.

[3] Indra's post. The PTS Dict. gives 'threshold' as a second meaning, which would also be appropriate: the threshold is the foundation stone, its laying attended with *mantras*; to kick or stamp on it brings bad luck to the house. But this meaning is suspect.

[4] *Imāya ca cāturantāya pathaviyā Nandino vaḍḍhi nāma mā hotū ti*.

to the Moriya king. She was pregnant when her king was killed by
a usurping vassal and had to flee to Pupphapura. There she was
delivered of a son but the *devatās*, by their magic power, caused
her to abandon him in a pot near the gate of a corral. There the
devatās caused a bull named Canda to stand guard over the infant,
as the bull had stood over the young Ghosaka.[1] And as Ghosaka had
been taken home by a cowherd, so, too, a cowherd found this baby
and, taking a liking to him, brought him home. On his naming day
he called him Candagutta because he had been protected (*gutta*) by
the bull Canda.

Candagutta was adopted and taken home by a hunter, a friend
of the cowherd. One day while tending the cattle the boys of the
village played king: Candagutta was chosen king, some were made
vassals, others ministers, still others robbers. The robbers were
caught and brought before Candagutta, who ordered that their
hands and feet be cut off. The 'king' then said, "May they be rejoined!"
and the feet were miraculously restored to the legs. Cāṇakka saw
this deed, astonished. He took the boy to the village and gave his
foster-father 1000 *kahāpaṇas* with a promise to teach the lad a
trade, and bore him off.

To both Candagutta and Pabbata, Cāṇakka gave a golden amulet
worth a hundred thousand on a woolen thread, to be worn around
the neck. Once while Pabbata was sleeping the others called out
to him, and he prophesied in his sleep: "Of the two, Prince Pabbata
will be abandoned and Candagutta will soon be highest king in
Jambudīpa." On another occasion Cāṇakka wished to test the
youths, so while Candagutta slept he ordered Pabbata to remove
Candagutta's woolen thread without breaking it or waking the
owner, which Pabbata was unable to do. When Candagutta was
set the problem, however, he solved it after the manner of Alexander
and the Gordian knot: he cut off Pabbata's head, and Cāṇakka
was not the man to be displeased at this. By the end of Candagutta's
seven years' training, when he had reached manhood, Cāṇakka had
found much in his protégé of which to be satisfied, and so he dug
up the treasure he had hidden long ago and levied an army with
it which he presented to Candagutta.

They invaded the kingdom but were badly beaten by the populace
and were forced to flee. The army disbanded and Cāṇakka and

---

[1] An allusion to a story which is preserved in the *Dhammapada Commen-
tary*, 1.174 ff.

Candagutta returned disguised to the kingdom to scout things out. While wandering about they listened to the conversations of the people. At a certain village they overheard a woman scolding her son, to whom she had given a cake, when he asked for another after he had eaten the middle and thrown away the edges: "This boy acts just like Candagutta trying to get the throne." "How so?" the boy asked. "You, love, eat the middle of the cake and throw away the outside just as Candagutta, eager for kingdom, neglected to subdue the border villages and attacked the villages in the king-dom itself straightaway. So the villagers and others rose up and surrounded him and destroyed his forces. That was his mistake."

Cāṇakka and the young prince took this to heart, and again raised an army. They subdued the countryside starting from the borders until they reached Pāṭaliputta, which they took, and slew Dhanananda.

Before Candagutta was anointed Cāṇakka ordered a certain fisherman to find the place where Dhanananda had hidden his great wealth. When in a month he had done so, Cāṇakka killed the poor fellow and anointed Candagutta.

There follow four verses of the *Mahāvaṃsa*,[1] a statement of sources which I shall discuss presently, and the remainder of the *Cāṇakya-Candragupta-Kathā*.[2]

Cāṇakka ordered a certain *jaṭila* named Paṇiyatappa to rid the kingdom of robbers (or rebels) which he soon did.

He then took steps to render the king immune to poison by mixing small doses of it in his food, without the king's knowledge. One day the chief queen (daughter of Candagutta's maternal uncle) who was due to give birth in seven days' time, ate with Candagutta, and Cāṇakka arrived just in time to see the king giving her a morsel from his own plate. Judging the queen was as good as dead but hoping to save the unborn child, he cut off her head and slit open her belly with a sword to remove the foetus. He put it in the belly of a freshly-killed goat, replacing it with a new one for each of seven days, after which the boy was 'born' and named Bindusāra on account of being spotted with drops (*bindu*) of goat's blood. At this point Cāṇakka leaves the narrative and is heard of no more.

Let us see how far back we can trace these stories.

---

[1] *MV* 5.18-21.
[2] *MṬ* 187.5 - 188.12.

The *Mahāvaṃsa* or 'Great Chronicle' and its commentary deal with the history of Ceylon, both ecclesiastical and political, from the mythical visit to the island of the Tathāgata to the time of king Mahāsena who reigned in *c.* A.D. 325-52; [1] the kings of Magadha are included only for their bearing on the early history of Buddhism. Little is known of the author of the *Mahāvaṃsa*, a certain Mahānāma, and estimates of its date vary between the fifth and sixth centuries A.D. [2] The author of the *Mahāvaṃsa Ṭīkā* is unknown and the date of its composition is set as late as A.D. 1000-1250 [3] or as early as the sixth or seventh centuries A.D. [4] This wide divergence in dating depends on whether one holds, with Geiger, that the author knew the *Mahābodhivaṃsa*, or with Malalasekera, that the parallel passages in the two works are the result of the *Mahāvaṃsa Ṭīkā* drawing on an earlier version of the *Mahābodhivaṃsa* in Old Sinhalese, of which the extant work is a Pali translation. Apart from this, Malalasekera argues for an earlier date from the fact that the *Mahāvaṃsa Ṭīkā* drew upon Old Sinhalese chronicles which were the basis for the Mahāvaṃsa and which were superseded by that work; hence the *Ṭīkā* must have been written shortly after the *Mahāvaṃsa* because these Sinhalese works probably disappeared soon after.

It is these Old Sinhalese chronicles which we must now consider. *Mahāvaṃsa* I. 1-4 says that it followed the *Mahāvaṃsa* compiled by the ancients and from the *Ṭīkā* we learn that this earlier work was in prose with Pali verses interspersed, and that Mahānāma's chronicle was a translation into Māgadhī (i.e. Pali) verse, preserving the content but improving the style. [5] This lost work is generally referred to simply as *Aṭṭhakathā*; [6] it had the character of the medieval chronicles of European monasteries, and was a part of the Old Sinhalese commentaries on the *Tipiṭaka*, also called *Aṭṭhakathā*, whether integrated with or independent from them. The latter were drawn upon and superseded by Buddhaghosa's Pali

---

[1] Geiger's date in *MV* trans. p. xxxviii.

[2] G. P. Malalasekera, *The Pali Literature of Ceylon*, pp. 139-40; Geiger, *op. cit.*, p. xii.

[3] Geiger, *op. cit.*, p. xi.

[4] Malalasekera, *op. cit.*, pp. 142-4; but in his edition of *MṬ* he ascribes it to the eighth or ninth centuries A.D., pp. civ-cix.

[5] Malalasekera, *MṬ*, pp. lvi-lxi.

[6] Also *Sīhalaṭṭhakathā* or *Sīhalaṭṭhakathā Mahāvaṃsa*, and probably the same are *Mahāvaṃsaṭṭhakathā* and *Porāṇaṭṭhakathā*.

commentaries on the Canon; and Malalasekera aptly remarks, "...the *Mahā-vaṃsa* bore to the Sinhalese *vaṃsatthakathā* exactly the same relation as Buddhaghosa's commentaries did to the scriptural *atthakathā*." [1] The Sinhalese commentaries according to tradition were begun by Mahinda, who introduced Buddhism to Ceylon under Aśoka, and both commentary and chronicle are particularly associated with the Mahāvihāra of Anurādhapura, the ancient capital. The Mahāvihāra is said to have been built by Devānampiya Tissa, Mahinda's patron,[2] and the compilation of the chronicles probably continued to the time of Mahāsena when the persecutions of the king caused the monks to leave the monastery and brought about its demolition in order to provide building material for the Abhayagirivihāra, with an account of which the *Mahāvaṃsa* closes.

These chronicles composed in the Mahāvihāra then, were probably added to year by year from contemporary events and the tales of visiting monks and pilgrims, and from this heterogeneous collection monographs may have been compiled on single topics such as the story of the Bodhi Tree, the foundation of the Thūpas and the deeds of Duṭṭhagāmaṇī.[3] From the material in these chronicles the *Dīpavaṃsa*, the *Mahāvaṃsa*, the *Mahāvaṃsa Ṭīkā*, the *Mahābodhi-vaṃsa* and the historical introduction to Buddhaghosa's commentary on the *Vinaya*, the *Samantapāsādikā*, mainly drew.

The *Mahāvaṃsa Ṭīkā* has other sources besides, of which we need only concern ourselves here with the *Uttaravihāraṭṭhakathā*, the chronicles compiled by the monks of the Uttaravihāra, more commonly called the Abhayagirivihāra. This monastery was founded by Vaṭṭagāmaṇi Abhaya after his restoration (29-17 B.C.),[4] "when two hundred and seventeen years ten months and ten days had passed since the founding of the Mahāvihāra," [5] on the site where the Titthārāma of the Jains (Nigaṇṭhas) had stood,[6] outside the north, *uttara*, gate of Anurādhapura. Mahātissa became its abbot, and as he grew in the royal favour the influence of the rival Mahāvihāra declined until, as if the ghost of heresy hovering about

---

[1] *Pali Literature of Ceylon*, p. 144.
[2] *MV* 15.
[3] Malalasekera, *MṬ*, p. lx.
[4] Geiger, *MV* trans., p. xxxvii.
[5] *MV*, 33.80.
[6] *MV*, 33.42, 83.

2

the site had been reanimated, the monks of the Abhayagirivihāra
fell away from the true faith and broke off relations with the
Mahāvihāra.[1]

There are several bits of evidence which suggest that the doc-
trines entertained by the monks of the Abhayagirivihāra not only
diverged from those of the Mahāvihāra, but were Mahāyanist in
tendency. None of these is unequivocal, and the canon of the
Abhayagirivihāra appears to have been substantially the Pali
Tipiṭaka of the Mahāvihāra which we know. However that may be,
in the course of a long existence from the end of the first century
B.C. to the end of the twelfth enctury A.D., during which it at
times overshadowed its rival, the Abhayagirivihāra was in more or
less constant communication with various monasteries of the Sub-
continent with whose doctrines the hierarchy of the Mahāvihāra
was out of sympathy.

The *Mahāvaṃsa Ṭīkā* emanates from the Mahāvihāra, and draws
freely on its *Aṭṭhakathā*. But it has drawn as well on the *Aṭṭhakathā*
of the Uttaragiri- or Abhayagirivihāra, chiefly for materials on
Īndian history, which in some cases differed from those in the
Mahāvihāra's *Aṭṭhakathā*, and in others were not to be found in the
latter. The two diverge, for example, in the details of the kings from
Mahāsammata to the Buddha; and the Abhayagirivihāra supplies
stories of Susunāga, of the nine Nandas, and of Cāṇakka and
Candagutta which are not found in the other chronicle. The chronic-
les of the two monasteries were undoubtedly much the same, since
the monks of Abhayagirivihāra were drawn in the first place from
the Mahāvihāra. It is probable that divergence of traditions came
about quite naturally through faulty transmission of one species
or another; but the stories not found in the Mahāvihāra chronicles
must have come from outside Ceylon, hence from the Sub-continent,
sometime after the founding of the Abhayagirivihāra in the last
quarter of the first century B.C.

It would seem that the nine Nandas, Cāṇakka and Candagutta
were known to the chronicles of both monasteries, although the
Mahāvaṃsa Ṭīkā chiefly draws upon that of Abhayagirivihāra
for its narrative. In its gloss on *Mahāvaṃsa* 5.14 it states that the
names of the ten sons of Kālāsoka are preserved in the (Mahāvihāra)

---

[1] *MV*, 33.95 ff. See the discussion in Étienne Lamotte, *Histoire du Boud-
dhisme indien*, pp. 406-7, and André Bareau, *Les sectes bouddhiques du Petit
Véhicule*, ch. 30: "Les Abhayagirivāsin ou Dhammarucika."

Aṭṭhakathā, and it is from that source that the *Mahābodhivaṃsa* no
doubt also drew them.[1] This makes it probable that, in spite of the
fact that the *Ṭīkā* ascribes the story of the origin of the nine Nandas
to the *Uttaravihāraṭṭhakathā*, at least the names of the nine, since
they are preserved in the *Mahābodhivaṃsa*,[2] were also preserved
in the Mahāvihāra chronicles. The *Ṭīkā* professes, moreover, to
abridge the Abhayagirivihāra account, and tell only what does not
conflict with the orthodox tradition.[3] When we come to the *Cāṇakya-
Candragupta-Kathā* proper, we are told:

> Both the subjects of the anointment of Candagutta and the time
> previous to it are told in all detail in the *Uttaravihāraṭṭhakathā*.
> Those who wish may look them up there.[4] We have presented only
> the most important matter which is immediately taleworthy and
> does not conflict with the orthodox tradition. There (in the *Uttara-
> vihāraṭṭhakathā*), moreover, the story of Cāṇakka and the story of
> the taking of Candagutta by the cowherd and so forth differ. The
> rest we have presented as told in the [Mahāvihāra's] *Aṭṭhakathā*.[5]

Thus while it is not necessary to suppose that the nine Nandas,
Cāṇakka and Candagutta were entirely unknown to the Mahāvihāra
chronicles, the details therein must have been very meagre; for the
Ṭīkā's author clearly hesitated to draw upon what in his eyes was
a heretic tradition, and we must assume he has done so only for
stories and episodes unknown to the Mahāvihāra.

The inconsistencies in the story as we have it are unlikely to
have arisen through differences in the accounts contained in the
two monasteries, for as we have seen the Mahāvihāra preserved
little more than a mention of it, and the *Ṭīkā*'s author professed to
tell nothing at variance with the orthodox Mahāvihāra tradition.
Abridgement accounts for some inconsistencies. Probably the
Uttaravihāraṭṭhakathā, for example, explained the method whereby

---

[1] *MBV*, p. 98: Buddhasena, Koraṇḍavaṇṇa, Maṅgura, Sabbañjaha,
Jālika, Ubhaka, Sañjaya, Korabya, Nandivaddhana and Pañcamaka.

[2] See above, p. 11, fn. 2.

[3] . . . *tesaṃ navannaṃ uppattikamañ ca Uttaravihāraṭṭhakathāyaṃ vuttaṃ.
Mayam pi saṅkhepena tesaṃ uppathimattaṃ samayāvirodhamattaṃ kathayāma.*

[4] !

[5] *MṬ* 187.5 ff.: *yo Candaguttassa abhisiñcitakālo ca anabhisiñcitakālo ca
tesaṃ ubbhinnaṃ adhikāro ca, so sabbākārena Uttaravihāraṭṭhakathāyaṃ vutto.
atthiken' etaṃ oloketvā gahetabbo. mayam pana accantaṃ kathetabbaṃ samayā-
virodhaṃ mukhamattaṃ eva dassayimha. ettha pi Cāṇakkassa adhikāro ca
Candaguttassa dhanagopena gahitā ti ādi adhikāro ca viseso. itaraṃ Aṭṭhaka-
thāyam eva vuttaṃ dassayimhāti.* The *pana gopena* of most MSS. would be
preferable to *dhanagopena*.

Cāṇakka made eight *kahāpanas* out of one, and it may be due to carelessness on the part of the author of the *Mahāvaṃsa Ṭīkā* that the boy 'king' Candagutta orders the 'robbers'' *hands* and feet cut off, while actually only their *feet* are cut off and restored.

But, making allowances for anomalies arising from abridgement and reworking by the author of the *Mahāvaṃsa Ṭīkā*, the story gives, on closer inspection, the appearance of a number of disparate anecdotes collected and arranged in chronological sequence without having been made wholly consistent, and this accords with the *Ṭīkā*'s testimony that even within the *Uttaravihāraṭṭhakathā* there were various stories of Cāṇakka and Candagutta. An excellent example of this is the story of the breaking of the teeth: Cāṇakka himself breaks them, moved by his mother's fears that he will become king and neglect her; yet in the very next episode he leaves for Pupphapura, and his poor mother is never again heard of. Indeed after the flight from the Nanda's palace, he goes about looking for someone else 'worthy of the royal umbrella', that is, he intends to be a power behind the throne—so much for his mother's fears. The anecdote is a perfectly good one in itself, but it does not agree with the rest of the story.

Again, consider Dhanananda's avarice: Cāṇakka is drawn to the capital attracted by the king's generosity, and the commentator (I take it that it is he who speaks here) is constrained to explain that Dhanananda has changed his ways and is no longer avaricious. The use of both the alternate forms, *macchariya* and *macchera*, in the two places probably points to a change in sources,[1] though, of course, both anecdotes could have been preserved in the chronicles of the same monastery. Another alternation, that between the forms *Pāṭaliputta* and *Pupphapura*, may have a similar explanation; the use of both in the *Mahāvaṃsa* can be attributed to metrical reasons which do not hold for the *Ṭīkā*.[2] A third is of undoubted significance: Cāṇakka's curse is laid on *Nandin* while everywhere else the form is *Nanda* or *Dhanananda*.

---

[1] *MṬ* 179.29, 181.32.

[2] If this alternation has any significance, it would be necessary to show why 'Pupphapura' occurs in *MṬ* 181.10 (gloss) and .30 (linking sentence probably from the *MṬ*'s author) while the *MṬ*'s author elsewhere prefers the form 'Pāṭaliputta', 198.26 (against the Pupphapura of *MV* 5.39) and 199.21 (gloss). The other passages for Pāṭaliputta are *MṬ* 179.21 (nine Nandas), and 186.25 (killing of Dhanananda) and for Pupphapura, 183.25 (Moriya queen).

Etymologizing tales are rarely necessary to the narratives they accompany, and the etymologies of the name Moriya are no exception to this. The explanation of the name Candagutta, however, actually harms the economy of the narrative by requiring a double adoption: he is found by the cowherd who loves him as a son [1] and gives him his name, but is then adopted by a hunter, who nevertheless makes him tend cattle! The rather lame etymology of Candagutta, 'protected by (the bull named) Canda' is explicitly fashioned on the story of Ghosaka which required that he be found by a cowherd, and was evidently inserted into the familiar story of the abandonment of a royal babe and his adoption by the rustic, in this case a hunter, who finds him.

These inconsistencies are, I think, sufficient to vouch for the anecdotal character of the *Cāṇakya-Candragupta-Kathā* as it was preserved in the chronicles of the Abhayagirivihāra and as it has been preserved for us, in more or less connected sequence, by the *Mahāvaṃsa Ṭīkā*. This catalogue of faults is, however, not yet complete, and can only be made so by comparing the Pali version of the story with the Jain, to which we now turn.

The Jain Version

The Jain version of the *Cāṇakya-Candragupta-Kathā* is found in several of the exegetical and commentatorial works of the Śvetāmbara canon, but it is convenient to deal in the first place with the legend as presented in Hemacandra's narrative of the Jain elders posterior to Mahāvīra, *Sthavirāvalīcarita*, also called the *Pariśiṣṭaparvan* or 'Appendix' to his long Sanskrit poem on the lives of the sixty-three eminent figures of Jain hagiology, the *Triṣaṣṭiśalākāpuruṣacarita*.[2]

Cāṇakya was born to the brahmin Caṇin and his wife Caṇeśvarī, both pious Jains (*śrāvaka*), in Caṇaka, a village in the Golla district. He was born with a complete set of teeth, which the monks explained as an omen that he would become a king; but his father, fearing the pride of kingship would lead him to perdition, ground down his son's teeth, whereupon the monks foretold that he would be 'a king concealed within an image', a power behind the throne (*bimbāntarito rājā*). Cāṇakya became a *śrāvaka* proficient in all

---

[1] *Puttasineham uppādetvā*, 184.1.

[2] *Sthavirālīcarita or Pariśiṣṭaparvan* (2nd ed.) ed. Hermann Jacobi. Cited as *PP*. The story is found at *PP* 8.194 to the end of the *sarga*.

the sciences and married a brahmin girl of good family. Once,
when attending the marriage of her brother, her relatives teased
her on account of her poverty. This spurred her husband to go to
Pāṭaliputra, to the court of King Nanda, who, he had heard, was
liberal to brahmins. When he entered he went straightaway to the
king's seat and sat down. Nanda's son, entering with the king, saw
the brahmin tread on the king's shadow and sit down. A slavegirl
graciously offered Cāṇakya the next seat, but he merely put his
drinking pot on it; on offering him the third, he laid his staff on it;
on the fourth he put his rosary and on the fifth his sacred thread.
The *dāsī* in exasperation kicked him from his seat. This roused
Cāṇakya to a fury, and he vowed: "I will uproot Nanda, together
with his treasure and his servants, his friends and his sons, his army
and his chariots, as a great wind uproots a tree." [1] With this he
fled the capital.

Remembering he was to be a 'king concealed within an image'
he went looking for one worthy of kingship. He came upon a village
where dwelt the wardens of the king's peacocks (*mayūraposaka*).
The chief's daughter was pregnant and had a craving (*dohada*) to
drink the moon.[2] Cāṇakya agreed to satisfy this craving on condition
that the child should belong to him. He took the girl to a shed on
a full-moon night and had her drink a bowl of milk in which the
moon was reflected through a window. Her craving was satisfied,
and the child was born, a boy, who was named Candragupta. Thus
his name ('protected by the moon') is accounted for by the *dohada*
story; and the surname Maurya is accounted for by making him
son of a *mayūraposakā*. Cāṇakya, with the object of amassing gold,
resumed his wanderings, seeking those proficient in alchemy
(*dhātuvādaviśāradān*).

Candragupta as a boy was made 'king' by his playmates. Cāṇakya,
returning to the village one day, saw the boy-king, whom he did
not recognize, and in order to test him asked for a gift. The boy
stoutly told Cāṇakya he might take the herd of cows nearby,
because no one would presume to disobey his order. Cāṇakya was

---

[1] *PP* 8.225:

       sakośabhṛtyaṃ sasuhṛtputraṃ sabalavāhanam |
       Nandam unmūlayiṣyāmi mahāvāyur iva drumam ||

[2] The *dohada* motif is discussed by Maurice Bloomfield in *JAOS* 40,
1920, pp. 1 ff. and by N. M. Penzer, *KSS* trans., vol. 1, Appendix III, p.
221 ff.

pleased at this display of power and, learning who the boy was and promising him kingship, took him off to lay siege to Pāṭaliputra with troops hired by the wealth he had acquired through alchemy. The attempted invasion was easily repulsed, the army broke up and the two were forced to flee. They were about to be overtaken by a pursuivant when they came upon a lake. Cāṇakya dismounted and assumed the posture of an ascetic in deep meditation, ordering Candragupta to jump into the lake. The soldier came up and asked the 'ascetic' where Candragupta was, to which Cāṇakya replied by pointing to the water; and while the soldier was throwing off his armour Cāṇakya decapitated the soldier with his own sword. Continuing their flight Cāṇakya asked Candragupta what he had thought when he pointed him out to the soldier; Candragupta said he thought his master would know best, and Cāṇakya inferred that Candragupta would remain under his influence as king. A second pursuivant was similarly outwitted when Cāṇakya chased away a washerman and assumed his work. To allay Candragupta's hunger he slit open the belly of a brahmin who had just eaten and fed his protégé with the contents.

Entering a village in search of food, Cāṇakya overheard a mother scolding her child, who had stuck his finger in the middle of a bowl of hot gruel and got burnt, for being as big a fool as Cāṇakya. He asked her what she meant; she replied that the child had stuck his finger in the middle rather than starting from the edge, which was cooler, just as Cāṇakya had struck at the capital before securing the surrounding regions. Taking this to heart Cāṇakya went off to a secure the allegiance of Parvataka, king of Himavatkūṭa, to whom he offered half Nanda's dominions if they were successful.

One town raised a stubborn resistance. Cāṇakya entered it disguised as a Śaiva mendicant, and 'foretold' that the siege would last as long as the idols of the Seven Mothers remained in the temple. The credulous people removed them and the forces withdrew at Cāṇakya's order, but returned to take the town by surprise when the people were celebrating their 'deliverance'. When the countryside was subdued they took Pāṭaliputra and Nanda was allowed to go into exile with as many of his goods as he could carry on one cart. As Nanda was driving off he met Candragupta on the road, and his daughter instantly fell in love with the new ruler, and chose him as husband by *svayamvara*. As she climbed off the heavily laden cart nine spokes of the wheel broke. Cāṇakya interpreted this omen

to mean that Candragupta's dynasty would last for nine generations.

Parvataka fell in love with a girl whom, unbeknown to him, Nanda had fed on poison from birth (*viṣakanyā*). Cāṇakya approved his desire to marry. During the marriage ceremony, when he clasped her hand before the sacred fire, Parvataka was stricken from contact with the poisonous sweat which she exuded; and Cāṇakya prevented Candragupta from calling the physicians with the timely observation that he who owns half a kingdom and does not kill his partner is himself killed. So Candragupta became the sole ruler of Nanda's former realm, 155 years after Mahāvīra's *nirvāṇa*.

Those of Nanda's men who remained in the kingdom were harassing the people. Cāṇakya discovered a weaver who, whenever he found roaches in some part of his house, immediately set fire to it; him he put in charge of the suppression of rebels, which was soon accomplished.

Cāṇakya paid off an old grudge against a village where he had once been refused food by issuing an order capable of two interpretations, and burnt the village to the ground on the pretext of punishing disobedience.

To fill the treasury Cāṇakya took to gambling, staking eight *dīnāras* against one, using loaded dice. He also invited wealthy merchants to his home and plied them with wine; he took to boasting to them of his wealth, and when the merchants followed suit, Cāṇakya used this information to increase the king's treasury.

During a twelve year famine, two Jain neophytes made themselves invisible by rubbing their eyes with a magic ointment and ate off the king's plate. Cāṇakya strewed the palace floor with fine powder in which footprints appeared during the meal. Cāṇakya saw through the trick and ordered that thick smoke be made in the dining room at the next meal, which caused the neophytes' eyes to water, and when the ointment was washed off by their tears they became visible. Cāṇakya complained about the young monks' behaviour to Ācārya Susthita who, however, blamed the laity for neglecting the duty of charity. And so Cāṇakya gave liberal alms henceforth.

Cāṇakya proved to Candragupta that the heretic teachers he patronized were pious frauds, given to sensual pleasures, by strewing the floor of a part of the palace near the women's apartments with fine powder, and leaving the teachers there before bringing them to the king to discourse upon their doctrines; their

footprints showed that they had sneaked to the window of the women's apartments to peep. The same test was applied to Jain monks the next day, but they remained seated the whole time. Candragupta therefore made them his spiritual counselors.

On Cāṇakya's order Candragupta's food was mixed with increasing amounts of poison to make him completely immune to it. Queen Durdharā, who was pregnant, one day dined with the king and was almost instantly killed by the poison. Cāṇakya at once ripped open the queen's belly and extracted the foetus, a son, who had already been touched by a drop (*bindu*) of the poison and was therefore called Bindusāra. Cāṇakya anointed him king when Candragupta died by *samādhi*.

Another minister, Subandhu, was jealous of Cāṇakya's ascendency and turned Bindusāra against his rival by telling him that Cāṇakya had killed the queen, his mother. Cāṇakya fell from favor and turned his mind to supramundane things; but he nevertheless resolved that his enemy should get his due. Accordingly, he pronounced *mantras* over a perfume which he placed in a casket together with a note, and retired to a dunghill to starve himself to death. Bindusāra had meanwhile learned the truth of his mother's death, and was very angry with Subandhu. The latter promised to conciliate Cāṇakya and approached him ostensibly with that purpose, but left a glowing coal in the dunghill, and Cāṇakya went up in flames.

But Cāṇakya's revenge was accomplished:[1] Subandhu entered Cāṇakya's house, hoping to find hoarded treasure. He opened the casket containing the rich perfume, which he breathed. He then read the note: whoever breathes this perfume must become an ascetic, or die. Subandhu chose to become an ascetic.

The similarity of this story to the Pali version will have been noticed, but it needs to be shown that where they differ, the Jain version is almost always superior.

In the first place the contradiction of Cāṇakya's breaking of his teeth out of filial piety and then leaving his mother does not arise in the Jain version where it is his father who grinds them down from concern for Cāṇakya's soul. There is no particular reason why teeth should be a royal omen anyway: what is remarkable is that, like Richard III, Cāṇakya was *born* with a full set, a detail lacking

---

[1] *PP* 9.1 ff.

in the Pali version. The prophecy, after the grinding of the teeth, that he will be a 'king concealed within an image', provides the motivation for his search for another worthy to be king, after his flight from Nanda, the search being mentioned in both versions; nor has this important prophecy, which the *Mahāvaṃsa Ṭīkā* lacks, dropped out of the Pali version through abridgement.[1]

In the Pali version Cāṇakya simply takes a seat among many in the almshouse: his mere ugliness, a result of the breaking of his teeth, is enough to throw the Nanda into a passion. In the Jain story he offers the king two excellent reasons to fly into a rage: he steps on the king's shadow and sits on his throne; and then, piling insult on insult, he puts his belongings on the adjoining seats.

There is perhaps not much to choose between the two versions when we come to the etymologizing stories concerning Candragupta Maurya. The moon in the *dohada* motif does not 'protect' Candragupta and the story of the bull Candra is inept. The Jain story is probably inserted, as I have shown the Pali one was, since after satisfying the *dohada* and acquiring the boy, Cāṇakya leaves in search of a teacher of alchemy, and returns to find that the boy, whom he does not recognize, shows signs of royal worth, a rather roundabout way of doing things; here the Pali version in that it does not involve Cāṇakya in Candragupta's birth is better. There is, again, little to choose between the two versions of the 'boy-king' episode; but the Pali version, with its appeal to the supernatural, is perhaps later. Probably Cāṇakya's making eight coins from one in the Pali version is due to alchemy (*dhātuvāda*), the Jain version supplying the answer.

The Jain version excels the Pali in its telling of the 'unconsciously given advice' motif: in the Pali the boy eats the centre of the cake and *throws away* the edges, while in the Jain, the boy sticks his finger in the middle of a bowl of gruel and *gets burnt*; this and the advice he is given exactly correspond to the campaign of Cāṇakya and Candragupta.

The Pabbata of the Pali version only serves to secure Cāṇakka's escape from the palace, after which he is discarded. Although he

---

[1] The royal destiny is recognized *before* he breaks his teeth: *so pana pitari mate mātuposako ti ca rājachattāramahāpuñño ti ca loke sambhāvito ahosi.* But after breaking out his teeth: *Evam so mātuposako ti loke sambhāvito ahosi*, with no mention of its effect on his royal worth (*MṬ* 181.16 - 17, 27). Yet it reappears in connection with Candagutta.

lingers on after the finding of Candagutta, Cāṇakka was already looking for 'another worthy of the royal umbrella' after the flight: from this it is clear that Pabbata is not the man, and the 'test' is superfluous in his case as in that of Candagutta, who has already shown signs of a royal future in his childish games. By contrast Hemacandra's Parvataka is, as his name should indicate, a hill-king of Himavatkūṭa, rather than Nanda's son. An alliance with him is most fitting as Cāṇakya has just seen that he must subdue the border regions before taking the capital, and once victorious he is discarded in a way worthy of Cāṇakya's reputation.

The story of Nanda's hidden wealth and the search for it is lacking in the Jain version, which therefore does not contradict itself by presenting Nanda as avaricious on the one hand and generous on the other. The Pali version of the pacification of the country-side is very cryptic, and it is possible that its source included some anecdote which made the choice of a *jaṭila* to accomplish it seem more appropriate. But the Jain version provides us with an appropriate agent in the person of a weaver who carries his zeal in destroying roaches to extraordinary lengths, and explains, moreover, that the 'robbers' are the remaining partisans of Nanda.

The anecdote of Bindusāra's birth is the one etymologizing story which the two versions have in common, and they are so close as to leave little basis for choice.

There is little that is specifically Jain in the story. True, Cāṇakya and his parents are made out to be adherents of Jainism, and Candragupta and Cāṇakya are both said to have ended their days in the manner of Jain ascetics, though involuntarily in the case of the latter. That Candragupta was attracted to Jainism may well be true: in Jain legend he occupies the place of Aśoka in Buddhist. But the two anecdotes of monkish misdemeanors do not serve to advance the narrative.

The remainder of the stories found in the *Pariśiṣṭa Parvan* but not in the Pali works are also loosely attached to the thread of the narrative and can be presumed later additions. Such is the case in the episode where Nanda's daughter, smitten by love for Candra-gupta, gets off the cart to mount his chariot and in so doing nine spokes of the cartwheel are broken, signifying a duration of nine generations for the new dynasty. Prognostications of this sort would seem to be obligatory in describing the rise to power of the

founder of a line of kings. Of the first Nizam of Hyderabad, for
example, it was said that when at his coronation he gave a mere
seven chapatis to a mendicant holy man for his blessing, the holy
man foretold that as many Nizams would reign, a prophecy which
has been realised in our own times.[1] But this episode in our story
further serves to legitimize the usurper Candragupta by marrying
him to a Nanda princess, an end which other versions achieve by
making Candragupta a son or grandson of the Nanda. Such connec-
tions are as tendentious and unhistorical as that in the Pali version
which in good Sinhalese fashion marries Candagutta to his matri-
lateral cross-cousin.[2]

The mocking of Cāṇakya's wife for her poverty, since it provides
motivation for his going to the court of Nanda, may be original to
the story, even though it has no Pali parallel. It is possible, too, that
Cāṇakya's rivalry with Subandhu formed part of the original
Cāṇakya-Candragupta-Kathā, since this finds mention elsewhere in
Pali literature. From Dhammapāla's commentary on the Thera-
gāthā we learn that the thera Tekicchakāni was the son of the
brahmin Subhandhu. This Subandhu displayed wisdom in deeds
and skilfulness in means; and Cāṇakka, out of jealousy and a fear
that Subandhu would surpass him at court, got Candagutta to
throw the poor man into prison, whereupon his son fled and took
holy orders.[3] Subandhu does not figure in Cāṇakka's demise as
remembered in the Saṃsthāraka and other edifying Jain collections
on the deaths of famous men, according to which, though a wicked
man, he died by voluntary starvation in the approved Jain manner,[4]
but this is scarcely significant.

In composing the Pariśiṣṭa Parvan Hemacandra drew chiefly on
what has been called the Kathānaka literature, legends and anec-
dotes concerning the deeds of Jain patriarchs and famous men,
which are preserved in the cūrṇis and ṭīkās attached to the canonical

-----

[1] Taya Zinkin in The Guardian, 25 February, 1967.
[2] Other fairly well-known (unhistorical) examples are the marriage of
Ajātasattu and Vajirā and the successive bilateral cross-cousin marriages in
the MV genealogy of the Buddha.
[3] Paramatthā Dīpanī (Theragāthā Aṭṭhakathā), commy. on TG 6.2 (commy.
vss. 381-6), p. 163.
[4] Pāḍaliputtammi pure Cāṇakko nāma vissuo āsī savvāraṃbhaniyutto
iṃgiṇīmaraṇaṃ aha nivanno. Quoted in An Illustrated Ardha-Magadhi
Dictionary, s.v. Cāṇakko; the passage is given as Saṃsthārakaprakīrṇa 73,
Piṇḍaniryukti 500 and Bhaktapratyākhyānaprakīrṇa 162.

sūtras and *niryuktis*.[1] The *Cāṇakya-Candragupta-Kathā* from the birth of Cāṇakya to the filling of the treasury is preserved in Prakrit in the *Uttarādhyāyana Ṭīkā* [2] and the *Cūrṇi* and *Ṭīkā* on the *Āvaśyaka Niryukti*; [3] of the remainder of the stories, which, as we have seen, are only loosely connected to the main narrative, "many details can be traced in the Āvaśyaka-, Uttarādhyayana- and other Kathānakas."[4]

The *Sthavirāvalīcarita* was composed sometime between A.D. 1159 and 1172.[5] Its source, the Kathānaka literature, belongs to a period beginning with the end of the first century A.D. and ending with Haribhadra, *c.* A.D. 750[6]. The antiquity of the Jain *Siddhānta* and its exegetical literature is a subject of much controversy, as tradition has it that the canon was first fixed at the Council of Pāṭaliputra in Candragupta Maurya's time, but only set down in writing at the Council of Valabhī in the fifth or sixth century A.D., i.e. 980 years after the *nirvāṇa* of Mahāvīra.[7] It is generally held that at least some of the canon must have been in written form from early times, but the opinions vary as to how accurately the present canon represents that of the Council of Pāṭaliputra. However, there is general agreement that the Kathānaka literature is old; and Haribhadra, who wrote a Sanskrit *ṭīkā* on the *Āvaśyaka* and other *sūtras* and *niryuktis*, relied on ancient Prakrit commentaries, and "retained the narratives (Kathānakas) in their original Prakrit form." [8]

It might be asked whether the greater coherence and consistency of the Jain version of the *Cāṇakya-Candragupta-Kathā* has been imposed on it by Hemacandra, binding together diverse anecdotes more successfuly than the author of the *Mahāvaṃsa Ṭīkā* did. Hemacandra was, after all, a veteran storyteller by the time he began the *Pariśiṣṭa Parvan*. But in the first place the bulk of the story is preserved in connected form in Hemacandra's Prakrit source, and

---

[1] See Jacobi, *PP*, p. v. ff. The other source of the *PP* is the Prakrit poem *Vasudevahiṇḍi* on Vasudeva, Kṛṣṇa and the like.

[2] *UṬ* 3.1 printed in *PP*, p. 336 ff. Prakrit prose interspersed with Prakrit and Sanskrit verses.

[3] *ĀN* 9.64.38, Jacobi, *PP*, p. ix. I have not been able to ascertain whether this story is identical to the above.

[4] Jacobi, *PP*, p. ix.

[5] Bühler's reckoning in Jacobi, *op. cit.*, p. xxv.

[6] The same, p. vii.

[7] See M. Winternitz, *History of Indian Literature*, vol. 2, pp. 431-2.

[8] The same, p. 481.

in the second, it can be shown by comparison of the two that he is here as elsewhere true to the essentials of his original, casting it into a more polished and smoothly flowing narrative and filling it out with description and dialogue. By way of illustration we refer to one of the choicest episodes, where the *dāsī* asks Cāṇakya to take another seat. This is the Prakrit version:

> The slave-girl spoke: "Sir, take the second seat." "Be it so." On the second seat he puts his water-pot; likewise on the third his staff; on the fourth his rosary; on the fifth his sacred thread. "Impudent!" she said, and expelled him. He became angry. He says to her...[1].

This is what Hemacandra makes of the scene:

> Cāṇakya was politely addressed by a certain slave-girl of the king: "Take thou this second seat, Oh twice-born." "My water-pot shall stay there," he said, placed the water-pot there and did not leave the first seat. Likewise he obstructed the third with his staff, the fourth with his rosary and the fifth with his sacred thread. The slave-girl saw this. "Oh, impudent! He does not leave the first seat; on the contrary, he obstructs the other seats as well. What sort of a brahmin is this impudent fellow?" and, kicking Cāṇakya, ejected him. Cāṇakya flew into a rage like a snake beaten with a stick, and in full view of everyone made this vow....

The repetitions of Hemacandra ("water-pot here", "water-pot there") are perhaps lapses occasioned by the fatigue of composing the 34,000 ślokas of the *Triṣaṣṭiśalākāpuruṣacarita*; but there is no denying that the flat Prakrit version has been greatly enlivened. The metaphor of the snake beaten with a stick could not be more vivid.

It might further be argued that this merely displaces the problem one step back without solving it. But if the Prakrit version is coherent and self-consistent, that is the only literary merit it has. When the episodes of a story disengage themselves from each other and are transmitted separately as anecdotes they are bound to suffer alterations which make them discordant when reunited, as I have argued has happened in the *Mahāvaṃsa Ṭīkā* with regard to the *Cāṇakya-Candragupta-Kathā*. When the story is transmitted as

---

[1] *PP* p. 337. The English scarcely does justice to the compression of the original, which must be looked upon as mere notes to be expanded upon in homiletic situations: *bhaṇio dāsīe. bhayavaṃ bīye āsaṇe nivesāhi. evaṃ hou. bitie āsaṇe kuṃḍiyaṃ thavei. evaṃ taïe daṃḍayaṃ. caütthe gaṇelliyaṃ. paṃcame jaṇovaïyaṃ. dhiṭṭho tti nicchūḍho. padosam āvaṇo. aṇayā ya bhaṇaï.*

a whole, however, it may well undergo changes but the integrity of the whole is preserved and tends to conserve the original features. For these reasons, I am inclined to consider the Jain version not only the better, but the older of the two.

The Kashmirian Version

Two works, Somadeva's *Kathāsaritsāgara* [1] and Kṣemendra's *Bṛhatkathāmañjari*,[2] retell the *Cāṇakya-Candragupta-Kathā* as it was presented in an earlier Kashmirian version of the lost *Bṛhatkathā* of Guṇāḍhya. Our story here is merely an episode of the tale of Vararuci, which in turn forms a part (though indeed a dispensible part as we shall see) of the legend of how Guṇāḍhya came to write his *Bṛhatkathā*.

Vararuci (who is identified with Kātyāyana, the grammarian) and his two fellow-pupils, Indradatta and Vyāḍi, journey to king Nanda at Ayodhyā to ask for a crore of *dīnāras* as fee for their *guru* Varṣa. When they arrive Nanda has just died; but Indradatta manages by *yoga* to slip into Nanda's body and reanimate it, and grants Vararuci's petition. The minister Śakaṭāla guesses the true state of affairs and has Indradatta's abandoned body burnt, thus permanently imprisoning him in Nanda's; but the 'Yoga-Nanda', fearing Śakaṭāla's revenge, casts him into a dungeon, together with his hundred sons and gives them rations sufficient only for one; the sons give all the food to their father, so that he may live to take revenge, and starve to death. Yogananda takes Vararuci as his minister. In the course of time Yogananda's character deteriorates and Vararuci quits the court for the forest to become an ascetic; Śakaṭāla is restored to his office but secretly thinks of revenge. Vararuci learns of the fate of Yogananda and the accomplishment of Śakaṭāla's revenge from a brahmin recently come from Ayodhyā:

One day Śakaṭāla had happened upon a brahmin, Cāṇakya, digging up the earth in his path and on inquiry learned that he was rooting up some *darbha* grass because it had pricked his foot. Śakaṭāla decided that one so resolute in satisfying his anger was the man through whom to destroy Yogananda. He invited Cāṇakya to preside over the king's *śrāddha*, occupying the seat of honour, for a fee of 100,000 *dīnāras*. Śakaṭāla lodged Cāṇakya in his own

---

[1] Vss. 1.5.108-25; *KSS* trans. vol. 1, p. 55 ff.
[2] Vss. 2.213-18.

becomes Guṇāḍhya of Supratiṣṭhita in Pratiṣṭhāna. The curse is to be lifted when Puṣpadanta-Vararuci tells the tale to the *piśāca* Kāṇabhūti in the Vindhyās (who, as if things were not complicated enough, is a *yakṣa* suffering under a curse from Kubera), and when Mālayavat-Guṇāḍhya receives the story from Kaṇabhūti and publishes it to the world. And so it fell out. Vararuci, after leaving Yogananda's court passes on the story to Kāṇabhūti. Guṇāḍhya, who had become minister to king Sātavāhana and who, as a result of losing a wager, yielded his post to a rival, Śarvavarman (who had succeeded in teaching the king Sanskrit in six months), and had forsworn the use of Sanskrit, Prakrit or the vernaculars, hears the tale in Paiśācī from Kāṇabhūti. Eventually a part of the tale is published by king Sātavāhana, who composes the *Kathāpīṭha*, containing the Guṇāḍhya legend, by way of introduction. This, then, is the *Bṛhatkathā*. In the Nepalese version the transmission of the story is much more direct: a bee, Bhṛṅgin, overhears Śiva's tale and is reborn as Guṇāḍhya at Mathurā; he becomes a *paṇḍit* ṭo king Madana of Ujjain but loses his office to Śarvavarman (omitting the business of the wager) and at the advice of the *ṛṣi* Pulastya, writes the tale in Paiśācī. Lacôte concludes with justice that the tale of Vararuci "is a whole, perfectly distinct from the story of Guṇāḍhya", which could not originally have been part of it: there is no point of contact between Vararuci and Guṇāḍhya save through an intermediary, the *piśāca* Kāṇabhūti, who is super-fluous to the legend.[1]

The story of Vararuci is loosely affiliated to the Jain story of the ninth Nanda as told by Hemacandra, where the rivalry of the minister Śakaṭāla and the poet, philosopher and grammarian Vararuci is described.[2] But the differences are enormous. In the Jain version it is not Śakaṭāla, for example, who is imprisoned with his sons, but Kalpaka, minister to the first Nanda; there is no Yogananda, and Śakaṭāla, who does indeed fall out of favor with his king, does not live to carry out his revenge, but soon dies and passes on his office to his son. As for the Kashmirian Cāṇakya episode, it agrees with the Jain only in the circumstances of Cāṇa-kya's curse, and even there only distantly. Cāṇakya's rivalry with Subandhu, moreover, properly belongs to the period after Candra-gupta's anointment.

---

[1] Lacôte, pp. 31-2.   [2] *PP* 8.

The material is lacking to account fully for these great differences. What can be discerned, however, is that we are presented here not so much with the *Cāṇakya-Candragupta-Kathā* as with a tale which would better be entitled 'Śakaṭāla's Revenge'. Cāṇakya's resolve to root up the *darbha* grass because it had pricked his foot, as a hyperbolic illustration of his irascibility, is successful, but it belongs to a story in which the dominating figure of Cāṇakya has shrunk to that of an unwitting tool in Śakaṭāla's hands, much as the weaver who exterminates roaches in the Jain version is the tool of Cāṇakya. It is not indeed Cāṇakya here who is 'equal in ability to Bṛhaspati', *guru* of the gods and author of an *arthaśāstra*, but Śakaṭāla. It is not immediately apparent why Śakaṭāla should here have become so important that the *Cāṇakya-Candragupta-Kathā* has become a mere pendant to the story of Nanda and Śakaṭāla. But if we approach the story from the direction of the Guṇāḍhya legend, we can see that once Vararuci is brought in, his rivalry with Śakaṭāla, known to folk-lore, must be incorporated, too, and that Śakaṭāla must be a dominating figure. Thus is Cāṇakya made to serve the needs of the story.

But why was Vararuci brought in at all? The answer is simple: for grammar's sake. The two features of the Kashmirian Guṇāḍhya legend lacking in the Nepalese version, that is, the story of Vararuci and the wager, serve the greater glory of grammar. Vararuci, also known as Kātyāyana, is identified with the author of the *Vārttikas* on Pāṇini, and indeed Pāṇini's grammar is revealed to him on account of his severe penances in the Kashmirian story. To this Vararuci are also ascribed a Prakrit grammar, the *Prākṛtaprakāśa*; the fourth book of the *Kātantra* and the *Liṅgānuśāsana*; the *Vārarucasaṃgraha*; a lexicon; the Vedic *Puṣpasūtra* and, in addition to these grammatical works, a *Vārarucakāvya* mentioned in Patañjali.[1] In the legend one of Vararuci's fellow-pupils is Vyāḍi, author of a lost *Vyāḍisaṃgraha* on Pāṇini,[2] and they and their *guru* Varṣa are mentioned by Rājaśekhara as composers of grammatical *śāstras*.[3] To Śarvavarman is ascribed the *Kātantra* by which he is enabled to teach king Sātavāhana Sanskrit in six months and so win his wager with Guṇāḍhya; the *Kātantra* was very influential in Kashmir.[4] Finally Guṇāḍhya himself was, if not a grammarian,

---

[1] Keith, p. 427.
[2] Mentioned in Patañjali. Keith, p. 426.
[3] Keith, p. 339.   [4] Keith, p. 431.

certainly a renowned author in Prakrit. "By coupling the two legends, we obtain a cycle of stories which encompass the most celebrated grammarians, a kind of epic designed to flatter pedants, a glorification of the heroes of grammar." [1] Who attends the funeral of a grammarian?—everyone, in ancient India.

Thus the *Cāṇakya-Candragupta-Kathā*, a late arrival to its vehicle, has suffered distortions due to the special interests of the Kashmirian legend of Guṇāḍhya, so that it has been changed almost out of all recognition from its original form.

The Mudrārākṣasa and Its Ancillary Literature

Mudrārākṣasa, or 'The Signet-ring of Rākṣasa' is the title of the only extant drama of Viśākhadatta.[2] It is in seven acts, and depicts the conciliation of Rākṣasa, the hereditary minister of the Nandas, by Cāṇakya, the cunning minister of Candragupta Maurya whom Cāṇakya had raised to the throne of Pāṭaliputra after engineering the destruction of the Nanda dynasty. Lying in the background of the action of the drama are the military operations of Prince Malayaketu and his coalition of barbarian chiefs against Pāṭaliputra and Candragupta's army; but the foreground is dominated by the strife between Rākṣasa and Cāṇakya, in which Cāṇakya succeeds in defeating Malayaketu's advance not by force but by keenness of intellect and craftiness of policy, and in this he is shown a good practitioner of the dicta of *arthaśāstra*, where devious stratagems are advocated in preference to the use of force, which is of uncertain outcome. It is consistent with this theme that the princes of the play are only of secondary importance; the intended invasion of Pāṭaliputra never materializes and Candragupta is the humble pupil of Cāṇakya, much as Malayaketu is mere putty in the hands of Rākṣasa, which he shapes to his purposes, until Cāṇakya intervenes.

At the end of the prologue the angry Cāṇakya enters with his top-knot undone,[3] an allusion to his vow to destroy the Nandas; only at the end of the last act does he bind up his hair in token that the vow has been fulfilled. The occasion of the vow is ambiguously

---

[1] Lacôte, p. 32.
[2] *Mudrārākṣasa* by Viśākhadatta, ed. Alfred Hillebrandt. See also the trans. by H. H. Wilson, *Select Specimens of the Theatre of the Hindus*, vol. 2, p. 137 ff.
[3] P. 4: *tataḥ praviśati muktāṃ śikhāṃ parāmṛśan sakopaś Cāṇakyaḥ*.

put: the Nanda had taken away Cāṇakya's power and removed him from the 'first seat of the kingdom', which on the face of it makes him a disgruntled ex-minister of the Nandas, but, recalling the Pali and Jain stories, seems on second thought to allude to his expulsion from the king's seat in the assembly of brahmins. When the play opens the Nandas have already been annihilated, but their minister Rākṣasa has escaped, to whom we must now understand the vow extends: "While Rākṣasa is at large, is Nanda's line truly uprooted or Candragupta's fortunes made secure?" [1]

The events preceeding the opening of the play are sketched to Rākṣasa by one of his agents, Virādhagupta, in the second act: Cāṇakya had allied Candragupta with Parvateśvara (Parvata, Parvataka), a mountain king, against Nanda. They led their victorious forces, which included Śakas, Yavanas, Kirātas, Kāmbojas, Pārasīkas and Bāhlīkas, against Kusumapura (Pāṭaliputra). Rākṣasa left the capital after the Nandas had been destroyed to raise the resistance, and sent a 'poison maid' (viṣakanyā) to assassinate Candragupta; but, as we learn in Cāṇakya's first soliloquy in Act I,[2] the latter deflected the plan, got Parvata killed instead and so arranged things that the blame was fixed on Rākṣasa. Parvata's son, Malayaketu, knows the truth about his father's death and has fled to Rākṣasa's camp with Bhāgurāyaṇa, who poses as a friend but is in fact a tool of Cāṇakya. Returning to Virādhagupta's narrative in Act II we further learn that Cāṇakya had persuaded Vairodhaka, brother of Parvata, that his death was the doing of Rākṣasa, and as a consequence Vairodhaka and Candragupta were reconciled and a division of Nanda's empire agreed upon. Cāṇakya, knowing the chief architect of the city to be faithful to Rākṣasa, ordered him to prepare a triumphal arch for Candragupta's progress to the palace, which was to be held at midnight, ostensibly for astrological reasons. He had Vairodhaka lead the procession, heavily decked with robes and jewels and mounted on Candragupta's elephant, attended by Candragupta's bodyguards. Rākṣasa's agents arranged that the temporary arch fell on Vairodhaka, whom they mistook for Candragupta, and in this way, he too was eliminated and his death ascribed to Rākṣasa. Returning once again to Cāṇakya's soliloquy in Act I, we learn that Malayaketu

---

[1] P. 7: agṛhīte Rākṣase kim utkhātaṃ Nandavaṃśasya kiṃ vā sthairyam utpāditaṃ Candraguptalakṣmyāḥ?

[2] Pp. 8-9.

with Rākṣasa's guidance seeks to avenge his father's death, and in this project has got the aid of a great army of barbarian kings [1] and later [2] the foremost of these are specified as Citravarman of the Kaulūtas (i.e. Kūlu); Nṛsiṃha of the Malayas; Puṣkarākṣa of the Kāśmīras; Siṃdhuṣeṇa of the Saindhavas (i.e. Sindh); and Meghākṣa of the Pārasīkas (i.e. Persia). In Act V Rākṣasa, detailing the disposition of the troops, adds to this list the Khaśas, Magadhans, Gandhārans, Cedis, Śakas, Yavanas, and Hūṇas: [3] some, at least, of these had previously been allied with Candragupta under Parvata.

They play itself proceeds as follows: In Act I an agent informs Cāṇakya that there remain in Pāṭaliputra three persons sympathetic to Rākṣasa: the Jain monk Jīvasiddhi (who in truth is another of Cāṇakya's many agents), the scribe Śakaṭadāsa, and the head of the jeweller's guild Candanadāsa. The last-named harbors Rākṣasa's wife; and Cāṇakya's agent has recovered her husband's signet-ring, which she dropped unawares. Cāṇakya then writes a letter to Mala-yaketu, in very vague terms, warning him of the treachery of his barbarian allies, has it copied by the unsuspecting scribe, Śakaṭa-dāsa, and seals it with Rākṣasa's ring. He orders the supposed monk Jīvasiddhi to be 'banished', arrests Candanadāsa, and orders Śakaṭadāsa to be impaled, but arranges for an agent posing as the scribe's friend to rescue him and take him to Rākṣasa. At the end of the act we find that several of Candragupta's princes have fled to Malayaketu's camp; but this is merely part of the strategy of the wily Cāṇakya.

The second act takes place in Rākṣasa's house. A servant brings the minister a present of jewels from Malayaketu. His agent, Virādhagupta, apprises him of the failure of several attempts on Candragupta's life: Vairodhaka has mistakenly been killed by the assassins intended for Candragupta; Cāṇakya has foiled a poisoning attempt by his shrewd observation; murderers concealed in an underground passage leading to the king's bedroom were dis-covered from a trail of ants carrying fragments of their meal, coming through a wall, and the murderers were burnt to death; and so Cāṇakya has foiled each plan in turn. The scribe, Śakaṭadāsa,

---

[1] P. 6: *mahatā mleccharājabalena.*
[2] Pp. 21-2.
[3] P. 142.

arrives accompanied by his 'rescuer' Siddhārthaka. The latter presents Rākṣasa with a signet-ring which he claims to have found at Candanadāsa's doorstep; it is, of course, the minister's own ring, and as a reward Siddhārthaka is given some of Rākṣasa's jewels, originally presented him by Malayaketu. At the close of the act a merchant arrives selling jewels. The unsuspecting Rākṣasa is pleased with them, and purchases them.

Act III takes place in Candragupta's palace in Pāṭaliputra. The business of the act is for Cāṇakya and Candragupta to feign anger with each other for the benefit of Rākṣasa's agents, who are in the court disguised as musicians. The occasion is the preparations for the festival of the autumnal full moon (*Kaumudīmahotsava*), which Candragupta has ordered and Cāṇakya has forbidden on account of Malayaketu's approaching invasion. Candragupta, in a show of pique at the overruling of his command, pretends to dismiss Cāṇakya from office and in so doing he suggests that Rākṣasa is the better minister. Rākṣasa's spies leave, convinced that the two have parted company forever.

In Act IV we are again at Rākṣasa's house. The minister suffers from a violent headache and fatigue from sleeplessness over his projects. Malayaketu approaches, conversing with Bhāgurāyaṇa one of Candragupta's seemingly disaffected princes, who suggests to the king that the other princes' distrust of Rākṣasa is due to his hatred more toward Cāṇakya than toward Candragupta; they feel, Bhāgurāyaṇa insinuates, that once Cāṇakya were discarded, Rākṣasa might be tempted to cast his lot with Candragupta, since he is the hereditary Nanda minister and Candragupta is a son of the Nanda by a lesser queen. Before entering Rākṣasa's house they hear the messenger report to the minister that Candragupta has dismissed his minister and praised the superior merits of Rākṣasa, and Malayaketu's suspicions are fully aroused. Nevertheless he departs to prepare for an immediate march on Pāṭaliputra while his enemy is without a minister. Rākṣasa then consults a Jain monk—none other than Jīvasiddhi, Cāṇakya's agent—to determine whether the time is auspicious for beginning military operations. The monk assures him the day is favorable; but in his ambiguous astrological exposition the audience hears a prophesy that Rākṣasa's destiny lies with Candragupta, not with the sinking fortunes of Malayaketu.

Malayaketu's camp is the scene of the ensuing act. The seeming monk Jīvasiddhi convinces Malayaketu that it was Rākṣasa who

had his father murdered, not Cāṇakya; but Bhāgurāyaṇa prevails on him to leave Rākṣasa unharmed while the invasion lasts. Then Siddhārthaka, the 'rescuer' of the scribe Śakaṭadāsa, is caught with the letter which Cāṇakya has devised, bearing Rākṣasa's seal, copied in the scribe's own hand, and addressed to Candragupta. The burden of the letter is that the five *mleccha* princes can be bought off with promises of land and wealth; and Rākṣasa, the 'writer', wishes for himself only Cāṇakya's exile and the ministerial office. As Siddhārthaka wears the jewels Rākṣasa had given him, Malayaketu is convinced that he is really the minister's agent and that Rākṣasa is guilty of treachery. Rākṣasa is summoned. He arrives wearing the jewels which earlier he had purchased from the travelling merchant; they are in fact the jewels of Parvata, Malayaketu's dead father, and are recognized as such. The upshot is that Rākṣasa is dismissed and the five barbarian kings are executed with gruesome justice, those who coveted land by being buried, those who coveted elephants and wealth by being trampled to death.

Act VI reverts to Pāṭaliputra; we learn that Malayaketu's allies have left him in disgust at his brutal treatment of the five *mleccha* kings, and that the plan of invasion has been dropped; Rākṣasa has fled to the capital, but not unobserved by Cāṇakya's numerous spies; and Cāṇakya himself has publicly been 'reinstated' in Candragupta's favor. Enter Rākṣasa, who learns through one of his archenemy's agents, posing as a friend of the jeweller Candanadāsa, that the latter is about to be executed for refusing to yield Rākṣasa's wife and children to the state. Rākṣasa hastens to the execution grounds determined to give himself up in exchange for his noble friend's life. This he does in Act VII, the final act of the play. Cāṇakya, having spun an elaborate web of intrigue and misunderstanding, has at last lured Rākṣasa into it, and has simultaneously tested the minister's leading virtue, his capacity for loyalty, to the uttermost. Cāṇakya requires him to pledge that loyalty to Candragupta, and to accept his sword of state, for Candanadāsa's freedom. As minister Rākṣasa extracts a pardon for Malayaketu from Candragupta. His vow fulfilled, Cāṇakya at last binds up his hair and retires from public life. At the end of the play he gives this benediction:

> Once the Support of Creatures, the Earth, encompassed by destruction, clung to the tusk of the Self-Born Viṣṇu who had assumed the form of a mighty boar; now, she, set atremble by the barbarians,

(flies) to the stout arms of the true king. May His Majesty King Candragupta long protect relatives, servants and Earth! [1]

There is very little in the drama by which one can arrive at a date to which to ascribe it, but J. Charpentier has fixed on this final passage, taking it to be addressed to the reigning monarch for whom the play was written, and sees in it an exhortation to protect the realm against the threat of barbarian invasion from the northwest, in particular by the Hūṇas.[2] He specifies that monarch as Skanda Gupta, who in fact did repel the Hūṇas' onslaught. A number of scholars have preferred the reign of Candra Gupta II Vikramāditya, the namesake of Candragupta Maurya of the play, which is all the more fitting when it is remembered that Viśākhadatta is said to have written another drama, *Devī-Candragupta*, dealing with the expulsion of the Śakas of Ujjain by that Gupta king.[3] The difficulty is that the Hūṇas were not menacing India at so early a date, two generations previous to Skanda Gupta. But if, as is the generally accepted view, we take Kālidāsa to be contemporary with Candra Gupta II, we can at least say the Hūṇas were known at that time, for the great poet places them on the Vaṅkṣu (Oxus) in the *Raghuvaṃśa*. Viśākhadatta may have gratuitously added these Hūṇas to the list of peoples threatening Gupta power, while their chief contemporary rivals were the Śakas, that is, the Kṣatrapas of Ujjain. However, a somewhat later date seems preferable.

But whether the play is a Gupta or post-Gupta composition, it is its affiliation with other versions of the *Cāṇakya-Candragupta-Kathā* which chiefly concerns us. And here it is of cardinal impor-

---

[1] *vārāhīm ātmayones tanum atanubalām āsthitasyānurūpām*
yasya prāk potrakoṭiṃ pralayaparigatā śiśriye bhūtadhātrī |
mlecchair udvejyamānā bhujayugam adhunā pīvaraṃ rājabhūrteḥ
sa śrīmad bandhubhṛtyaś ciram avatu mahīṃ pārthivaś Candraguptaḥ ||
(7.29, p. 202)

Wilson, *op. cit.*, pp. 251-2, puts the speech in Rākṣasa's mouth.

[2] *JRAS* 1923, p. 585 ff. Wilson (*op. cit.*, vol. 2, p. 251) wrote, "This allusion to *Mlechchas* is corroborative of the Drama's being written in the eleventh or twelfth century, when the Patan princes were pressing upon the Hindu sovereignties." Jacobi ascribed it to 2 December, A.D. 860, on astronomical data and a (now known to be corrupt) reading of Avantivarman for Candragupta in the final verse.

[3] Konow, Speyer and Hillebrandt in Sten Konow, *Das Indische Drama*, p. 70 ff.; K. P. Jayaswal in *IA 42* 1913, p. 265 ff.; Srikantha Sastry in *IHQ 7*, p. 163 ff.; rejoinder by Charpentier in the same, p. 629. Fragments of the play survive.

tance to remember that, unlike the other versions, the *Mudrārākṣasa* was composed for a limited and highly sophisticated audience whose members we must suppose to have been thoroughly familiar with *arthaśāstra* through their education and with intrigue through experience; and it is *arthaśāstra* and intrigue, not the charming tales of popular legend, which form the substance of the *Mudrārākṣasa*. No doubt its setting is drawn from legend, and it belongs to that class of plays called *nāṭaka*, the subject of which, according to the *Sāhityadarpaṇa*, should be mythological or historical.[1] But the *Daśarūpaka* admits of fictitious or partly fictitious and partly traditional *nāṭakas*,[2] and the *Mudrārākṣasa* is of this latter sort. The problem, then, is to separate what is legendary from what is fictitious—fictitious, that is, in the sense of being a conscious product of the artistic imagination.

Three motifs in the events which preceed the opening of the play are found in the other literature and are easily recognized as traditional, Cāṇakya's vow, the alliance with Parvata, and Candragupta's paternity. As to the vow, Cāṇakya's wrath is everywhere referred to and the untying of the top-knot is found in the Kashmirian version, but the extension of that vow to include Rākṣasa's capture is an invention to serve the requirements of the play. Similarly the alliance of Candragupta with the hill-king Parvata against Nanda, and his subsequent 'accidental' death in the embrace of the poison-maiden is traditional, and supports the Jain version as against the Pali. But the figure of Parvata's brother Vairodhaka, the agreement to divide the kingdom with him, and his assassination are all inventions by the simple process of dittography: the Parvata episode has been told twice over, and both times the result is that Rākṣasa gets the blame. Finally it is briefly mentioned that Candragupta is a son of Nanda, and so has some claim to legitimacy in his seizure of power. This is legend, but probably late legend, as it is otherwise found only in the Kashmirian version and the literature ancillary to the *Mudrārākṣasa*.

It is not possible to decide whether the main theme of the play, the conflict of the ministers, has any legendary basis. The name Rākṣasa is unknown to the other versions, nor do any of them bring Cāṇakya into collision with Nanda's minister, whatever his

[1] Wilson, *op. cit.*, vol. i, p. xxiv.
[2] The same.

name; the Kashmirian version, on the contrary, has the two working hand in glove, Nanda's minister Śakaṭāla in this case being the hand. Nevertheless, the conflict of ministers is a popular theme, and it is possible that Cāṇakya's rivalry with Subandhu of the Jain and Pali versions has somehow been displaced so that Subandhu becomes minister to Nanda under the name Rākṣasa.

The composition of the barbarian host is also problematical. The inclusion of the Hūṇas is a grave anachronism, and whether one believes with Charpentier that it is purposeful (i.e. fictional), as relating to circumstances contemporary with the play's first performance, or embodying a received tradition, it has no historical significance whatsoever. The earliest form of the story on which Viśākhadatta based his play knew only one ally, Parvata, and again by a sort of dittography, this time repeated over and over, all the known varieties of barbarians have been confederated to make the threatened clash louder and more magnificent. One would be hard put to think of a barbarian people who had been overlooked. The Chinese perhaps?—some manuscripts include even them. We are reminded of the host assembled at Kurukṣetra (in which Cīnas and Hūṇas are also included). Nor would barbarians have come, in Indian historical experience, from any other direction but the northwest. If, then, the troop lists are a part of legend, the legend used was in a late form; if fiction, it is of no use in the search for the earliest form of the legend, much less for history. The greater part of the *Mudrārākṣasa* is, I contend, invention.

Not only has the *Mudrārākṣasa* attracted sufficient interest through the centuries to ensure its survival to the present day, but a fair amount of literature has grown up around it, not only proper commentaries with line-by-line glosses and Sanskrit 'shadow' for the speeches in Prakrit, but also more or less independent works dealing with the story of Nanda, Cāṇakya and Candragupta previous to the action of the play. The commentaries generally summarize events leading up to the play in 'prefaces', *pūrvapīṭhikās*, and we may conjecture that these prefaces, because of the inherent interest of their contents and because the *Cāṇakya-Candragupta-Kathā* proper deals in the main with the events preceeding Candragupta's anointment, before the play opens, gave rise to independent works containing no commentatorial material. I shall briefly note two such independent works, the prose *Mudrārākṣasapūrvasaṃka-*

thānaka of Anantaśarman[1] and Ravinartaka's *Cāṇakyakathā* in verse.[1]

In Anantaśarman's work the Nanda Sudhanvan reigns at Pāṭaliputra with Śakaṭara as his chief minister, and Rākṣasa as another of his ministers. When the Nanda dies, an ascetic enters the dead body by magical means and in this new avatar bestows liberal alms on his pupils. But Rākṣasa is suspicious of his master's new generosity and discovers the ascetic's lifeless body, which he burns, thus imprisoning the imposter in Nanda's body, and takes up service with King Parvataka (Parvateśvara). Śakaṭara secretly kills the Nanda on a hunting expedition when he reads an inscription prophesying that Lakṣmī would abandon either the king or the minister, and the heir, Ugradhanvan, is installed on the throne. The new king, however, discovers the murder of his 'father' and throws Śakaṭara together with his hundred sons into prison, with rations sufficient only for one. The father and sons decide to give all the food to Vikaṭara, the youngest, who promises to avenge their deaths. Vikaṭara is released, and Rākṣasa returns as chief minister. Vikaṭara one day happens upon a wrathful brahmin, Cāṇakya, who is energetically trying to destroy all the *kuśa* grass in the world because his father had been wounded by *kuśa* and died. He thinks Cāṇakya a suitable tool for his revenge and invites him to chair the king's *śrāddha*. When the king sees him in the seat of honour he turns him out, and Cāṇakya unbinds his top-knot, vowing not to tie it up again until the Nanda dynasty is destroyed. Candragupta, here presented as a son of the late king, joins forces with Cāṇakya and Parvataka, and they take Pāṭaliputra and vanquish the Nandas.

The entire story is very similar to that in Somadeva's *Kathāsarit-sāgara*. Most of the motifs can be traced to the original Kashmirian version, to which Anantaśarman's work must stand in close relation, probably via the *Kathāsaritsāgara* itself. Thus the minister Śakaṭara (Śakaṭāla), the Yogananda episode with the burning of the imposter's body, the imprisonment of the minister and his sons with rations sufficient only for one (though here the youngest son

---

[1] Ed. Dasharatha Sharma (*Ganga O.S.* no. 3), containing as an appendix the "still later perhaps and certainly much balder in style" anonymous *Mudrārākṣasanāṭakapūrvapīṭhikā*, the contents of which are similar to Anantaśarman's work.

[2] Ed. with Bengali trans. by Satish Churn Law (*Calcutta O.S.* no. 6), based on a manuscript from the library of the Rajah of Cochin. Wilson, *op. cit.*, p. 141 ff., has translated a similar Sanskrit work from a manuscript in Malayalam characters.

survives rather than the father), the wounding by grass, the vow and the unbinding of the hair are held in common. The alliance with Parvataka comes direct from the *Mudrārākṣasa*, but Rākṣasa, who is a double for Śakaṭāla of the Kashmirian version in the burning of the imposter's corpse, and whose role as a minister of Parvataka accords badly with the *Mudrārākṣasa*, plays a role which Anantaśarman has perhaps invented for him in the absense of any traditions about him. The prophecy of Lakṣmī is of unknown origin.

In Ravinartaka's *Cāṇakyakathā* Nanda is given two wives, one a kṣatriya and the other a śūdra. The śūdra queen, Murā, gives birth to a boy who is named Maurya, but the high-born queen gives birth to a lump of flesh, which the minister cuts into nine pieces, putting each into a jar, whence nine sons are born. The nine sons reign in rotation, a year at a time, determining the order by lots; Maurya becomes commander-in-chief of the army. The nine brothers become jealous of Maurya's continual power while they have to wait their turn for the kingship; so they cast him and his hundred sons into prison with rations for one. They give their rations to the youngest, Candragupta, who promises revenge. The king of Siṃhala (Ceylon) sends the Nandas a cage containing a lion with instructions to make the lion run out without opening the cage. The nine Nandas are nonplussed, and fetch Candragupta out of confinement to solve the riddle. He perceives that the lion is of wax, and pokes a redhot iron rod into it, whereupon the lion melts and runs out of its cage. Candragupta's opportunity for revenge comes when he meets the wrathful Cāṇakya uprooting the grass which had pierced his toe. He invites the brahmin to preside over the *śrāddha* where he is turned out of his seat of honor by the Nandas, and, unloosening his topknot, he vows to accomplish their destruction.

The similarity of this southern work to the Kashmirian version is very tenuous, but we may remark that of the four main versions discussed, only the Kashmirian contains the 'wounding by grass' motif, so a genetic relationship may exist. The nine sons from a lump of flesh may derive from the story of Gandhārī in the *Mahābhārata*; the source of the wax lion episode is unknown.

The Primitive Cāṇakya-Candragupta-Kathā

Let me briefly recapitulate what I have said with regard to the Indian versions of the *Cāṇakya-Candragupta-Kathā* before looking at the Classical version.

Of the four versions the Pali and Jain are very close in content and because of this, since we have no reason to suppose one is borrowed from the other, I conclude that they drew independently from an early version of the *Cāṇakya-Candragupta-Kathā*. These versions, then, may have originated in Magadha, or at any rate, in eastern India or the Midlands, and cannot be regarded as indigenous to Gujarat and Ceylon. The Pali version, on internal evidence, is the reunion of separately transmitted episodes or anecdotes, while the Jain was handed down more or less as a whole and this would tend to conserve its original features and its consistency. The Jain version is by and large superior to the Pali, both as a story and as a guide to the primitive form of the *Cāṇakya-Candragupta-Kathā*.

The Kashmirian version cannot be traced to early times, nor can its origin be traced outside Kashmir. The story is here distorted to suit the special needs of its vehicle, the story of Vararuci, in which it is preserved as a mere anecdote. The story of Vararuci's rivalry with Nanda's minister Śakaṭāla is fairly old and not restricted to Kashmir since Jain sources preserve a version of it. Taking the Vararuci story in an earlier form, the Kashmirian version adds the Yogananda motif and relates his downfall in the episode of "Śakaṭāla's Revenge" which is our *Cāṇakya-Candragupta-Kathā* with the emphasis displaced from Cāṇakya to Śakaṭāla. This change of emphasis shows among other things that the motif of Cāṇakya destroying the grass because it had wounded his foot is not original to the *Cāṇakya-Candragupta-Kathā* because it requires that Cāṇakya be the instrument of someone else's revenge. Finally, because Vararuci was known as a great scholar and poet, and in particular as the author of a Prakrit grammar, his story was inserted into the legend of Guṇāḍhya, another renowned figure of Prakrit letters, with further alterations, by making Vararuci a *gaṇa* suffering under a curse.

Viśākhadatta has also distorted the *Cāṇakya-Candragupta-Kathā* in the *Mudrārākṣasa*, but for different reasons. His play is a consciously artistic creation and as such freely has recourse to invention. Besides, the play opens after the events of the *Cāṇakya-Candragupta-Kathā* proper have taken place, its theme being rather the application of the rules of *arthaśāstra* in intrigue. It preserves little of the original story, but where it does (Parvataka and the poison-maiden) it gives independent confirmation of the superiority of the

Jain version to the Pali. Its ancillary literature is of little value in determining the original form of the *Cāṇakya-Candragupta-Kathā*, though a thorough study of this literature and of current folktales might be revealing.

The minimum elements of the primitive *Cāṇakya-Candragupta-Kathā* can then be listed as follows:

1. *Breaking of the Teeth.* The brahmin Cāṇakya was born with a complete set of teeth, which was interpreted as an omen that he would become king. His father, out of regard for his salvation, grinds them down. It is prophesied that he will rule through another. As he grows up he learns all the brahmanical lore (he must be a learned brahmin to be able to expect a gift from the Nanda).

2. *Teasing of the Wife*: Her relatives teased Cāṇakya's wife for her poverty. Cāṇakya learns this and sets out for the court of Nanda, noted for his generosity. (This is somewhat doubtful since the Pali version lacks it, but it supplies motivation for the journey to the court.)

3. *Ejection from the Assembly.* Cāṇakya arrogantly sits on Nanda's seat in the assembly. Nanda takes offence and roughly orders him expelled. Cāṇakya, in anger, vows Nanda's destruction, and flees. (The untying of the top-knot may be original.)

4. *Cāṇakya's Wanderings.* In the course of his wanderings Cāṇakya's plans for revenge mature in two ways: he learns alchemy, by which he amasses a fortune to hire mercenary troops, and, looking for a puppet king (in keeping with the prophecy), he finds Candragupta Maurya, a boy playing 'king', who shows promise when put to a test. (Etymologising stories are easily inserted here when the need for them came to be felt.)

5. *Unconsciously Given Advice.* Cāṇakya and his protégé lead their troops against the centre of the kingdom (or against Nanda's capital) and are defeated. The army disbands. Wandering incognito they overhear a woman scolding her son for being as big a fool as Cāṇakya: he has put his finger in the middle of a bowl of gruel and burnt it, rather than starting from the cooler edges, just as Cāṇakya has attacked the centre without first subduing the hinterland.

6. *Parvata.* Acting on this advice Cāṇakya concludes a pact with Parvata, a hill-king, promising him half the kingdom. The allies succeed but Cāṇakya arranges (or does not prevent) the death of Parvata by the embrace of a poison-maiden. Candragupta is anointed.

7. *Pacification of the Kingdom.* The next logical step is to rid
the kingdom of the remaining partisans of Nanda. For this Cāṇakya
enlists the services of a fanatical weaver whose suitability for the
job is illustrated when Cāṇakya sees him set fire to the roach-
infested parts of his house.

8. *Bindusāra.* Cāṇakya, to make Candragupta immune to poison,
puts increasing doses of it in his food. His pregnant queen eats
from his plate. Cāṇakya slits open the queen's belly with a knife
and thus saves the heir, who is named Bindusāra because a drop
of poison, or goat's blood from the carcass in which he is kept until
'birth', touches him. (This is somewhat doubtful, but is common to
the Jain and Pali versions, and contributes to the story of Cāṇakya's
downfall.)

9. *Rivalry with Subandhu.* That stories of a rivalry with Subandhu
leading to Cāṇakya's death belong to the original *Cāṇakya-Candra-
gupta-Kathā* is quite likely, though their content cannot be deter-
mined since the Pali sources give only meagre details which show
no agreement with the Jain.

The Classical Version

It has been usual to regard Classical notices of Nanda and Candra-
gupta as deriving from contemporary eyewitness accounts, and thus
as having a character altogether superior to, as well as independent
of, the Indian legends we have been discussing. But this is by no
means the case. Four of the five Alexander-historians, Diodorus,
Curtius, Justin in his epitome of Trogus and Plutarch (the 'good'
Arrian being the fifth), preserve material which in the case of Nanda
is probably derived from Indian legend, and in the case of Candra-
gupta is certainly so.

In these accounts Nanda appears as Agrammes (Curtius) or
Xandrames (Diodorus). Whether Agrammes represents Sanskrit
Ugra, Ugrasena, Augrasainya[1] or Agrama,[2] or Xandrames is
Sanskrit Candramas[3] or some other name, it is not necessary to
decide: it is clear that he is a predecessor of Candragupta and

---

[1] *PHAI*, p. 233. Uggasena (Ugrasena) is the name of the first Nanda in
MBV (see above); his descendants would have the patronymic Augrasainya.

[2] Christian Lassen, *Indische Alterthumskunde*, vol. 2, 2nd ed., p. 210,
fn. 2.

[3] J. W. M'Crindle: *The Invasion of India by Alexander the Great*, p. 409.

contemporary with Alexander, that is, a Nanda. Diodorus and Curtius give the story in great detail.[1]

King Phegeus (Phegelas, in some manuscripts of Curtius) described to Alexander the country beyond the Beas: first there is a desert which takes twelve (or eleven) days to cross; beyond is the Ganges, which Diodorus gives as 32 stadia broad; and on the further side of the river are the Praisioi and Gandaridai (Gangaridae and Prasii) whose king Xandrames (Agrammes) has a standing army of 20,000 horse, 200,000 foot, 2000 chariots and 4000 (3000) elephants. Alexander treated this intelligence with some scepticism and referred it to Porus, who verified it and added that this king was held in contempt by his subjects, as he was the son of a barber who had become the paramour of the queen. The former king had been assassinated by this woman (or by the barber who, under the pretense of acting as guardian to the royal children, usurped the throne and murdered the princes). Diodorus is not clear as to whether this barber actually reigned, but we may take it from Curtius that he did so. It is here, partly as a result of these reports, that Alexander's men refused to advance further into India.

In Plutarch's compressed account the mutiny takes place after the battle with Porus when the army balks at Alexander's intention to cross the Ganges, and the forces of the Gandaritai and Praisiai on the opposite bank have been swollen to 80,000 horse, 200,000 foot, 8000 chariots and 6000 elephants, in contrast to the 20,000 foot and 2000 horse of Alexander.[2] We are clearly dealing with the same story here: Plutarch makes the Ganges 32 stadia broad; he recognizes that the forces on the further bank are enormous, but interjects that they are not exaggerated, for not long afterwards Androkottos (Candragupta) "made a present to Seleucus of five hundred elephants, and with an army of six hundred thousand men overran and subdued all India"; and he has Androkottos refer to the hatred and contempt in which his predecessor was held by the subjects, "for his baseness and low birth." Justin has Alexander defeat the Praesidae and Gangaridae among others, before reaching the Cuphites (Beas?) where the enemy awaiting him has 200,000

---

[1] Diodorus 17.93; Curtius 9.2. Where the details in Curtius differ they are put in parantheses.

[2] *Life of Alexander*, ch. 62, Bernadotte Perrin's trans. Note that Plutarch does not precisely say what scholars have sometime attributed to him, that Alexander had *reached* the Ganges. See Schachermeyr, cited below.

4

cavalry, whereupon his men beg him to go no further, an impossibly garbled account of the same tale.[1]

The fundamental difficulty in accepting this story as historical is its impossible geography. If there is a desert to cross on the eastward march, Phegeus belongs on the lower Indus, and it is no longer a mere eleven or twelve days to the Ganges, nor is Pāṭaliputra on the opposite bank. If Phegeus is to remain in the Punjab, and Agrammes/Xandrames/Nanda is eleven or twelve days' march eastward, the enemy is on the wrong side of the Ganges, unless upper Gangetic provinces are meant, and there is in any case no desert to cross. If, finally, Pāṭaliputra is to be approached from the north bank, having crossed the upper Ganges, it will take much longer to reach and again there is no desert to be traversed. This is the fundamental difficulty, but there are others.

Could we trace the Phegeus story with certainty to one of the members of Alexander's expedition its credibility in spite of its weak geography would be greatly enhanced. But we cannot. The five extant historians wrote three hundred to five hundred years after the events they describe had taken place. If I am not mistaken, there is a fair measure of agreement nowadays that Diodorus and Curtius consulted a common source for those parts of Alexander's progress through India where they show close agreement, as in the Phegeus episode; that Diodorus' principal source on India for Book 17 is Cleitarchus; that Cleitarchus did not accompany Alexander's expedition, but drew on the histories of Onesicritus, Nearchus and others, perhaps including Aristobulus, who did.[2] None of the named fragments of these primary historians mentions Phegeus. The story perhaps derives from Cleitarchus' book, but beyond that we cannot go. Some scholars consider it possible that Cleitarchus made it up.[3]

Further difficulties are found in Arrian, who is the best of the five historians since he drew mainly on the memoir of Ptolemy, son of Lagos, one of Alexander's generals. He knows nothing of Phegeus, but has something quite different to say: report had it that the land

---

[1] 12.8.

[2] See, e.g., Lionel Pearson: *The Lost Histories of Alexander the Great*, p. 224, and ff. But each of these statements except the first has its opponents. W. W. Tarn, *Alexander the Great*, vol. 2, section F.: Aristobulus the main source of Diod. Bk. 17; Wells, introd. to Pliny, *Hist. Nat.*, vol. 2 (Loeb): Cleitarchus accompanied Alexander.

[3] See Fritz Schachermeyr: "Alexander und die Ganges-Länder", ch. 7, in *Alexander the Great: The Main Problems*; see also Tarn, *op. cit.*, app. 14.

beyond the Beas was fertile, not desert; that its populace was brave in war, and ruled by an aristocracy, that is, in Indian terms, a *gaṇa* or *saṅgha*, not the kingdom, *rājya*, of Nanda; that this aristocracy governed with moderation; and, what most worked upon the imaginations of the Macedonians, that it had a great number of exceedingly large and fierce elephants.[1] Arrian's Alexander intended to reach the Ganges and the Eastern Sea,[2] a matter on which I shall have more to lay later on. Nor was Porus on hand to corroborate Phegeus' intelligence, for he had been sent back to garrison the cities which had surrendered before Alexander reached the Beas.[3]

There are many instances of a fundamental disagreement among the Alexander-historians over Alexander's itinerary, a disagreement which begins in 327 B.C. and ends some time in the following year, when Alexander was on, or setting out for, the lower Indus. It seems that the royal *Journal* for that period did not survive the expedition with the result, unfortunate for historians of India, that the accounts of the Punjab are very discrepant.[4] Consider, as an instance, the disagreement over the location of Sopeithes, who in Diodorus and Curtius, is king of the territory immediately before Phegeus', of which, luckily, the materials for a resolution are available. Strabo [5] remarks that some put the Cathaeans and Sopeithes, one of their kings, between the Hydaspes and Acesines (Jhelum and Chenab), some beyond the Acesines and Hyarotis (Chenab and Ravi). The first case corresponds to Sopeithes' position in Arrian,[6] the second in Diodorus [7] and Curtius.[8] Strabo further says

---

[1] *Anabasis* 5.25. Strabo 15.1 states that the country across the Hypanis (Beas) is very fertile, that little of accuracy is known of it, and that the government is aristocratic, consisting of 5000 councillors, each of whom provides the state with an elephant.

[2] *Anabasis* 5.26.

[3] *Anabasis* 5.24.

[4] Charles Alexander Robinson, Jr.: *The Ephemerides of Alexander's Expedition*. Robinson attributes the beginning of this disagreement to the arrest of Callisthenes, through whose history, it follows, the *Journal* for the first part of Alexander's expedition was preserved for later historians. The disagreement itself is attributed to the burning of Eumenes' papers (i.e. the *Journal* covering the middle period) mentioned in Plutarch's *Life of Eumenes*. The *Journal* for the remainder of the expedition was probably published by Strattis of Olynthus after Alexander's death.

[5] 15.1.30.

[6] *Anabasis* 6.2.

[7] 17.91, 92.

[8] 9.1.

that in Sopeithes' kingdom there is a mountain of salt sufficient
for the whole of India, whether on the authority of Onesicritus who
very probably had something to say of Sopeithes,[1] or some other
such as Aristobulus, who certainly did.[2] The mountain of salt
settles the matter: Sopeithes' kingdom must have included the Salt
Range between the Jhelum and Indus, some miles downriver from
Jhelum city where the battle with Poros is supposed to have taken
place, in agreement with Arrian.

From this it might be supposed that Phegeus, too, has been
transposed, and that he belongs somewhat further along the river
from Sopeithes. But this is out of the question. Phegeus would have
to go much further south, on the lower Indus, to find the Rajasthan
Desert to the east of him. His intelligence concerning the east could
hold little interest for an Alexander who had been forced to end
his eastward progress and who was now bent on determining once
and for all whether the Indus was the upper course of the Nile or
whether it emptied into Ocean. But above all, such information
given at such a place would lack the dramatic sequel which the
mutiny provides, which in turn would impress it upon the minds
of the members of the expedition who wrote the first histories. It is
anyhow likely that some of the information Phegeus is made to
impart was known to Alexander before he reached the Beas.

Let us try to reconstruct what happened. We must, first of all,
steel ourselves against the subtle wiles of Tarn's dialectic and assert
that in all probability Alexander had heard of the existence of the
Ganges and had presumed from what he heard that it emptied its
waters into Ocean before he set out eastward from the Jhelum,
which Tarn denied.[3] For centuries India from the Punjab to the
Gangetic Valley had been a single culture area with numerous cities
and plenty of contact from one end to the other. In Taxila especially
Alexander could have got the information he needed. Not only were
traders from the Ganges attracted by this important emporium
between India and Persia, but princes and scholars went there for

---

[1] Strabo 15.1.30 = Onesicritus F 21 (*FGH* 134), but "wie weit das exzerpt
aus O geht, ist nicht zu sagen", etc., (Jacoby, commentary). Cleitarchus
knows of the mountain of salt (*FGH* 137 F 28 = Strabo 5.2.6). Sopeithes in
Diodorus and Curtius is probably Onesicritus via Cleitarchus.

[2] *FGH* 139 F 40 = Plutarch *Pro Nob.* 19 on the dogs (of Sopeithes).

[3] See Tarn, *op. cit.* In the following three paragraphs (and elsewhere) I
have made use of Schachermeyer's excellent article cited above, p. 50,
fn. 3.

study, because the region was renowned for the purity of its speech. Geographic and political information on the Gangetic valley, then, was to be found in Taxila; and it is unthinkable that a man of Alexander's ambitions and interests would not have sought it out, or could not get it for want of good interpreters. This information must have included, at a minimum, the fact that the Ganges flowed into the sea, which Alexander took to be 'Ocean'; something about the Nanda as the dominant power and perhaps his capital, Pāṭaliputra; and probably the name Prasioi (Prācyāḥ, 'Easterners') by which the Greeks henceforth referred to the Magadhans.[1]

This is in accord with the fact that Alexander's progress from the Jhelum to the Beas was no small excursion but a full-scale expedition in which the main body of the army accompanied him.[2] His goal was the eastern edge of the world, which he believed to be fairly near.

Thus Arrian [3] has Alexander say in the course of his harangue to the mutinous soldiers on the Beas that the Ganges and the Eastern Sea are not far away, that this Eastern Sea was connected with the Hyrcanian (Caspian) and the Hyrcanian with the Persian and Indian Gulfs, since Ocean encircled the earth. It is clear that Alexander wished to explore the Indus, to decide whether it flowed into Ocean or into the Nile; but it is equally clear that he wished first to explore eastward, and his intelligence about the Ganges confirmed his belief in a world-circling waterway.

To the best of our knowledge, then, Alexander had determined to reach the Ganges long before he reached the Beas; and it follows from this that Phegeus is represented as having told him what he already knew, at least in large part. What Alexander really needed to know at this juncture was the nature of the peoples immediately across the Beas. This is what a local chief would be best informed about; and this, I believe, with Arrian, is what Alexander learned on the banks of the Beas. The reports of a well-governed people,

---

[1] Whether the name Gangaridai was known to Alexander, on the other hand, is very problematical. In Megasthenes it refers to inhabitants of what is now Bengal, but in Curtius and Justin they are bracketed with the Prasioi, while Diodorus and Justin, who also link them with the Prasioi, confuse them with the Gandaridai, Gandhārans (if the readings are correct), whom Alexander's companions must have known. The name Gangaridae (evidently from Gaṅgā) has no recorded Sanskrit equivalent.

[2] See Schachermeyr for proof.

[3] *Anabasis* 5.26.

brave in war and possessed of elephants, sufficed to spark the mutiny among the war-weary troops and officers.[1]

Even if the words with which he is credited were not his, there is some reason to believe that Phegeus himself is not fictitious. In the first place historians, however bad, are not in the habit of creating characters, especially characters with names, out of thin air. In the second place, the name itself seems to correspond to a Sanskrit Bhaga or Bhagala, attested in the *Gaṇapātha*, a work not too distant in time and probably composed in the Punjab.[2]

We come now to what Phegeus and Porus said. I have argued that they did not say it; I would argue further that it is not a Greek invention, for it has an Indian ring to it. To an Indian of this period, an army had to have four 'limbs', infantry, cavalry, chariots and elephants, to be an army. It was a matter of definition; long after chariots disappeared from the battlefield, 'army' remained *caturaṅga*,[3] four-limbed, as in the Indian game of 'chess', which is the same word. The Greeks had indeed observed that the Indian army contained chariots, but the battle of the Jhelum left them profoundly indifferent to them, so indifferent that Pliny regularly lists the numbers of foot, horse, and elephants of the princes India, but passes over the chariots in silence.[4] Somehow these limbs have escaped amputation in Diodorus, Curtius and Plutarch; had Trogus' history not been condensed by Justin, we might have found the four limbs there, too.

---

[1] Here I part company with the excellent article of Schachermeyr cited above, which accepts the basic historicity of both the conflicting versions of the meeting, by conjecturing that the Phegeus episode derives from sol-diers' tales while Arrian depicts the episode as seen from headquarters (i.e. Ptolemy, etc.) which had better information of what lay beyond the river. I do not think the Indian features of the story would have survived the distortions which soldiers' tales suffer. .

[2] *Bāhvādi*. The variant Phegelas or Phegelis is found in some MSS. of Curtius. See Sylvain Lévi in *JA 15*, 1890, "Notes sur l'Inde à l'époque d'Alexandre", p. 239. But the Greeks have probably not observed Lévi's 'lois de transcription' with such precision as his article suggests.

[3] There is a 16th cent. *nīti* text entitled *Hari-Hara-Caturaṅga*.

[4] Pliny, *Hist. Nat.* 6.21.8 - 23.11, cf. Solin. 52.6-17. Neither Pliny nor Solinus enumerate chariots, so that their source is unlikely to have mention-ed them, while on the other hand, his Indian informants undoubtedly did. Schwanbeck regarded these passages as Megasthenes fragments (see M'Crin-dle's trans., F 56 and 56B), though Müller and Jacobi did not. Chariots were no longer in practical (as opposed to ceremonial) use among the Greeks and Romans. Alexander did not use them, but his Persian and Indian opponents did, much to their disadvantage.

Another element provides a possible point of contact with Indian legends, the Nanda's barber-father, found also in Hemacandra.[1] Raychaudhuri raises various objections against seeing agreement here: Hemacandra's Nanda is the son of a barber and a common courtesan, *gaṇikā*, not a queen; he becomes king without their intervention; and he is the first of the nine Nandas, not the last, Alexander's contemporary.[2] The first point is minor, and indeed given the low reputation of the Nandas, it is easy to see how his mother might be downgraded with the passage of time from queen to courtesan; but it is somewhat ungallant to describe a *gaṇikā*, known for her beauty, character, decorum, and her skill in the 64 arts, rewarded by kings and praised by the noble, the highest representative of her class,[3] as 'common'. The second and third points must be taken together. The Indian sources are in complete disaccord on the number of generations the nine Nandas are to be spread over. Hemacandra says they ruled in succession as father and son,[4] but relates stories only of the first and the last; the *Mahāvaṃsa Ṭīkā* similarly relates stories only of the first and the last, but makes the nine Nandas brothers,[5] while the *Purāṇas* take a middle course, dividing them into Mahāpadma and his eight sons.[6] Bad as they are, the Purāṇas are least likely to be entirely false, and agree with the Classical version in giving the Nandas two generations. Given these conflicting traditions we cannot be certain how distant from Alexander the first Nanda was, but it is reasonable to suppose that the Greeks, hearing this legend of a predecessor of Candragupta, whom they knew to have come to power after Alexander's departure, made him a contemporary. It remains true that the Classical accounts make the first Nanda to rule a barber, while Hemacandra makes him the son of a barber. But with the confusion in the matter of generations and weighed against the striking agreement of the barber-father motif, this detail must be considered of lesser importance. If there is one note of agreement in the Indian traditions concerning the first Nanda, it is that he was of obscure, even *śūdra* origin, and in Indian society a barber ranks low indeed.

---

[1] *PP* 6.231-2.
[2] *PHAI* p. 232.
[3] *Kāmasūtra* 1.3.20-1; 6.6.54.
[4] *PP* 8.2.
[5] *MṬ* 5.179.
[6] Pargiter, *loc. cit.*

The Phegeus episode, then, is not historical as it stands, nor is it Greek invention. Perhaps we can get closer to the true state of affairs if we separate Porus' testimony from Phegeus'; for Porus would have known something of Nanda and as a member of the old Vedic aristocracy of the Punjab, as his name (Pūru, Paurava) indicates, he would quite naturally have held in contempt the up-start Magadhan dynasty. Thus Porus could have told Alexander something of the sort, though not at this juncture since he was elsewhere at the time, and the silence of Arrian is in that case some-what surprising. It is more likely, however, that Plutarch holds the answer when he says that Candragupta "often said" that Alexander could easily have conquered Magadha, since the king, Nanda that is, was hated and despised for his evil disposition and mean origin.[1] The barber-father business sounds as natural in the mouth of Candragupta the usurper as in that of Porus the man 'of family', and the story could have been transmitted westward in Seleucid times by one of the ambassadors. The description of Nanda and his kingdom in the Alexander-historians, then, was derived from an Indian source, but probably in post-Alexandrian times. Phegeus' geography, on the other hand, may well be pre-Alexandrian and Greek, at least in one detail; for Herodotus mentions a great un-inhabited desert of sand lying *eastward* of Darius' Indian provinces, presumably intending the Thar, which is more accurately southeast or south.[2] We cannot be certain of the circumstances under which the Phegeus episode came into being, but the probabilities are that it is an attempt, with the aid of hindsight, from snippets of Indian tales and an embroidered version of Herodotus' geography, to heighten the drama of the mutiny on the Beas.

In the story of Candragupta's rise to power we are on firmer ground. Here it is Justin who gives the fullest account, in his section on Seleucus:[3]

> (II) After the division of the Macedonian empire among the com-panions (of Alexander, Seleucus) carried on many wars in the east. First he took Babylon; then, his strength increased by this success, he subdued the Bactrians. (III) He then passed over into India (II)

---

[1] *Life of Alexander*, ch. 62.

[2] I am indebted to Professor A.L.Basham for pointing this out. That this is the Thar or Rajasthan Desert is corroborated by the fact that Hero-dotus' Indus also flows eastward, which satisfactorily accounts for the desert of Phegeus.

[3] 15.4.10-21.

which after Alexander's death, as if it had shaken the yoke of servitude from its neck, had slain his prefects. The author of this freedom was Sandrocottus, but after the victory the title of freedom changed to servitude: since, having seized the throne he oppressed with servitude the very people whom he had freed from foreign domination. (I) This man was of mean origin, but was prompted to aspire to royal power by the divine will. For when he had offended king Nandrus by his impudence, and was ordered by the king to be slain, he sought safety in the swiftness of his feet. When from fatigue he lay down and fell asleep, a lion of enormous size approached the slumberer and, having licked from him the freely flowing sweat and gently waking him, left him. This prodigy first inspired in him hope of royal power and gathering together (a band of) robbers [1] he instigated the Indians to a new sovereignty. (II) Thereafter (*deinde*), when he was preparing for war against Alexander's prefects, a wild elephant of great bulk came up to him of its own accord and as if tamed to gentleness took him on its back and became his leader in war and conspicuous in the battlefield. (I) Having thus acquired the throne (II) Sandrocottus was in possession of India when Seleucus was laying the foundations of his future greatness. (III) Seleucus having made a treaty with him and composing his affairs in the east, went to war with Antigonus.

Plutarch merely mentions that Androcottus, as a youth, saw Alexander, and afterwards frequently said that Alexander could easily have conquered the country because the king (Nanda) was despised, etc.[2]

That Candragupta offended 'Nandrus' and not Alexander (as the older editions read) is quite certain. The honor of this discovery goes to Alfred von Gutschmid, who made it over a hundred years ago.[3] Gutschmid found that where Bongarsius' edition (Paris, 1581) read *procacitate sua Alexandrum*, the variants given were (1) *procacitate Talenauandrum*, (2) *procacetade sua nandrum* and (3) *procate tale sua nandrum*, from which he inferred an original *procacit$_{ale}^{ate}$ (s)ua nandrum*. Referring the matter to J. Jeep, who, at the time, was preparing an edition of Justin for Teubner, he learned that four of the five good manuscripts read *Nandrum*, and of the five worse manuscripts one read *Nandrum*, a second had *Alexandrum* in the

---

[1] Not 'mercenaries' (*PHAI* p. 265, fn. 2), since *latro* in that sense is ante-classical, being found in Ennius (died 169 B.C.) and Plautus (died 184 B.C.), but not later (Lewis and Short); while Trogus must be later than 20 B.C. (Tarn, *Alex.*, vol. 2, p. 126).

[2] Cited above, p. 49, fn. 2.

[3] "König Nanda von Magadha in 15ten Buche der Historien des Pompejus Trogus", *Rheinisches Museum für Philologie 12*, 1857, p. 261 ff.

margin, a third had it in the text, a fourth had *mandrū* and a fifth *taleuandrum.* 'Nandrum' subsequently appeared as the preferred reading in Jeep's edition [1] and again in the 1935 Teubner edition of Otto Seel, wherein three classes of texts totaling seventeen different manuscripts read *Nandrum, Alexandrum* being noted for one manuscript and a siglum representing "codices deteriores aut aliquot aut singuli". But I dwell on the matter because the opinion has got abroad that the reading *Nandrum* is merely an emendation of modern editors, due to a remark once made by so eminent a scholar as Hemachandra Raychaudhuri.[2]

I have inserted Roman numerals in the text of my translation of the Justin passage to indicate three spans of time: (I) from the birth of Candragupta to his overthrow of Nanda, (II) from the death of Alexander (324 B.C.) to Seleucus' capture of Babylon, (312 B.C.) and beyond, to the time (III) of his crossing into India (305 B.C. ?), his pact with Candragupta and war with Antigonus which terminated at Ipsus in 301 B.C. The first two spans may overlap somewhat, that is, the passage gives us no reason to believe that the overthrow of Nanda was accomplished before or after Alexander's death.

Let us take Justin's testimony in chronological order. (I) He mentions Candragupta's low birth, his flight from Nanda, his encounter with the lion, his collecting a band of brigands. What follows is peculiarly worded, but nevertheless clear in meaning: *Indos ad novitatem regni sollicitavit*, that is, in place of the old *regnum* of Nandrus Rex, he established a new *regnum* of his own, or in other words, he "instigated the Indians to overthrow the existing government" as M'Crindle had it.[3] It is implied that he succeeded in this, for the story now enters a new scene marked by *deinde*.[4] (II) Candragupta, then, was saluted by a wild elephant in an auspicious manner, and went to war with Alexander's prefects, killed them, and liberated the Indians (of the Punjab) from Macedo-

---

[1] *Editio minor*, Leipzig, 1872.

[2] *IC 2*, 1935-6, p. 558, and to the same effect, *PHAI*, p. 265, fn. 1: "Such conjectural emendations by modern editors often mislead students who have no access to original sources and make the confusion regarding the early career of Chandragupta worse confounded."

[3] *Op. cit.*, p. 328. In a private communication Prof. D. J. A. Ross points out that a parallel to this unusual phrase would be *novae res*, 'revolution', 'constitutional change' in *novei rebus studere*.

[4] So Gutschmid, *op. cit.*

nian rule, completing the conquest, in all likelihood, by the time
Seleucus took Babylon. (III) Some time after, Seleucus went into
India, but made a pact with Candragupta and withdrew to make
war on Antigonus.[1]

A good deal of controversy has arisen over the question whether
in Justin Candragupta first takes the throne of Magadha and then
attacks the Punjab, or whether he gains the Magadhan throne from
the Punjab by virtue of his successes there. In this connection we
must consider the ingenious argument of N.K. Bhattasali, that after
collecting a band of robbers Candragupta cannot yet have become
king, for the elephant-omen which follows signifies that he *is to be* a
king, not that he already *is* one; thus the conquest of Magadha must
follow that of the Punjab.[2] The matter can be settled if we concen-
trate on the question of whose was the kingship by seizing which
Candragupta became king.

Now in the main Justin speaks as if Candragupta became king
as a result of a victory over Alexander's prefects, and this is only
natural from a Greek or Roman point of view. He states that
"having seized the throne he (Candragupta) oppressed with
servitude the very people whom he had freed from foreign domina-
tion"; the *regnum* here is clearly that of Alexander's men, for the
populum of the *regnum* is the people of the Punjab under foreign
domination, not the Magadhan people under Nanda's rule. Justin
goes on to say that Candragupta "was prompted to aspire to royal
power by the divine will" and elaborates by giving two omens: the
flight from Nandrus, leading to the lion-omen which "first (*primum*)
inspired in him hope of royal power", followed by preparation for
war against the prefects of Alexander and the elephant-omen.

---

[1] Tarn, *The Greeks in Bactria and India*, pp. 46-7, has drawn an incredible
amount of misinformation from this passage. Parvataka was not Porus
(see below); Justin does not say that "Candragupta got his kingdom at the
time when Seleucus was laying the foundations of his future greatness",
but that having got the throne Candragupta "was possessing India" (the posi-
tion of *Sandrocottus* shows that *ea tempestate* goes with *Indiam possidebat*;
Tarn achieved his interpretation at the cost of straining the word-order and
the sense and tense of *possidebat*); the Jain dating of Candragupta's accession
(312 or 313 B.C.) is unlikely to be exact because it is expressed in terms of
the Vikrama era, which was not yet in existence, let alone known by that
name, or in terms of the *nirvāṇa* of the Mahāvīra, for the date of which
traditions vary by 60 years. For two other remarks on this remarkable
paragraph, see below.

[2] "Mauryya [sic] Chronology and Connected Problems", *JRAS* 1932,
p. 273 ff.

"Having thus acquired the throne" would at first seem to refer to the whole of this action, and were it the case that Candragupta fled from Alexandrus Rex, we could only conclude that Justin has Candragupta acquire the throne by wresting it from Alexander's successors, without reference to the throne of Magadha. Yet as we have seen, *Alexandrum regem* is merely a *lectio facilior* for *Nandrum regem*, and it is against Nanda's sovereignty that Candragupta "instigated the Indians to a new sovereignty." [1] The conclusion seems inescapable that according to Justin's testimony Candragupta became king, king of Magadha that is, by overthrowing the Nanda, and again that he became king of all India, by virtue of a victory over Alexander's prefects. If we assume that Justin regarded the seizure of Nanda's throne as the sole test of kingship, but meant to imply that the seizure took place after the war with Alexander's prefects, his opening statements would no longer make sense. The duplication of royal omens probably means that we are here dealing with two separate stories combined into one narrative, the beginning of the second marked by *deinde*.

That the royal omens which befall Candragupta—the lion which licks his sweat while he is asleep and the elephant which takes him on its back—that these are Indian legends has long been recognized,[2] but the matter needs further comment. The lion is of course the king of beasts, *mṛgendra*, in Indian literature. But it is also the beast of kings: the throne is regularly called 'lion-seat', *siṃhāsana*, and lions coupling with princesses to procreate kings are found in the legends of Vijaya[3] and Sātavāhana.[4] (The other element of the episode, being wakened to sovereignty, is found in the story of the auspicious chariot which comes upon the sleeping Bodhisattva, which I shall describe presently, and the motif

---

[1] Bhattasali is in error when he says "the existing government" refers to the "Greek" government, since the term is M'Crindle's, not Justin's, while *ad novitatem regni* must refer, by contrast, to *Nandrum regnum*.

[2] Lassen, *op. cit.*, p. 207, fn. 2: "Dass diese dichterischen Ausschmückungen Indischen Ursprungs sind, ergiebt sich sicher daraus, dass eine Löwe, der als König der Thiere galt und mit dessen Namen die Krieger *Sinha* oder Löwen genannt werden, so wie ein Elephant, der als besonders den Königen und Kriegern zuhöriges Thier betrachtet wurde, in dieser Erzählung auftreten". More vaguely M'Crindle, *op. cit.*, p. 406: the omens "reflect the true spirit of oriental romance, and were no doubt derived from native traditions which somehow found their way to the west."

[3] *MV* 6.8-9.

[4] *KSS* trans., vol. 1, pp. 67-68.

common in Indian hagiology in which a cobra spreads its hood over a sleeping man, signifying that he is to become a saint or a king is somewhat similar.) Yet as Penzer has observed, lions are scarce in India and in Hindu fiction.[1] At the present day they are confined to the Girnar forest of Kathiawar. It is probable that lions were once more widely distributed in India, and were found in the Vindhyās at least.[2] But the natural habitat of lions cannot have included South India in historic times, where the tiger replaces it as the favored royal beast as, for example, among the Cōḷas of the Saṅgam and imperial dynasties, and the Hoysaḷas; and the souther-ner Śaṅkara significantly glosses the *mṛgendra* of *Bhagavadgītā* 10.30 as 'lion or tiger'.[3] The fairly common use of lion similies, metaphors and names in Buddhist literature, and the choice of the lion as the symbol of the Mahāvīra in Jain, probably indicate the existence of lions in the Gangetic valley in early times, though a careful study of the passages might yield interesting results. On the other hand, lion symbolism is particularly at home in western India, where Singh is the cognomen of Rajputs and Sikhs. Various lines of argument suggest that the Siṃhala 'lion-tribe' originated from western, not eastern India, whence they came to lionless Ceylon, the 'island of the lion tribe' (Siṃhaladvīpa). Western India moreover lies closest to the Middle East where lion symbolism abounds, and may be expected to have fallen under its influence. But what is more germane to our problem is the fact that the Aśokan lion-capital shows that the lion was a royal beast to the Mauryas, at least from the time of Aśoka. That the lion-capital derives from the Achemenid lion representation need not mean that the lion as a royal beast is an Achemenid conception first introduced by the Mauryas; there appear to have been plenty of precedents in Buddhist literature. However that may be, on the present evidence the best hypothesis concerning the lion motif in Justin is that it derives from Mauryan propaganda devised to legitimize Candra-gupta's usurpation of the Magadhan throne. At what point in Mauryan history it was formulated we have no way of specifying.

For the elephant-omen we have reasonably close parallels, for it is a variant of the very common and well-defined motif of "choosing

---

[1] *KSS* trans., vol. 1, p. 67, fn. 1.
[2] *KSS* trans., vol. 2, p. 56.
[3] Penzer notes that the Tamil version of the Vetāla tale of "The Four Brāhman Brothers Who Resuscitated the Lion" changes the lion to a tiger.

a king by divine will" [1] of which the fullest form can be illustrated from Hemacandra's story of the first Nanda: [2]

The Nanda, as we have seen, was the son of a courtesan and a barber. He had a dream that his entrails surrounded the city, and told this to a learned brahmin, who, perceiving it to be a royal omen, married his daughter to him, adorned him and led him in a marriage procession around the city. At the same time king Udāyin died leaving no heirs; so his counselors anointed the five instruments of divine will,[3] the royal elephant, the royal horse, the umbrella, the water-pot and the two chowries. These instruments began wandering about the king's household, but then left the palace and came upon Nanda's procession. The elephant trumpeted loudly, anointed Nanda with the contents of the water-pot and lifted him up onto its neck; the horse neighed "as if pronouncing a benediction"; the umbrella opened over him "like a lotus at dawn"; and the cowries began to shake "as if dancing"; whereupon he was made king.

This motif, common in ancient literature and in modern folktales from Kashmir to Ceylon, admits of several variations: the number of divine instruments may be only three or even one, typically the elephant, sometimes the horse. The elephant may place a garland on the new king's neck.[4] Or it may simply lift the man onto its back without sprinkling him with the waters of consecration, as in the *Kathāsaritsāgara* story where in a certain city it was the settled custom that on the death of the king the citizens would set an auspicious elephant to wander, and whomsoever the elephant lifted to its back was anointed king. The man so chosen in the story was a partial incarnation of the Bodhisattva.[5] The new king is generally of humble origin and he may be sleeping when he is found. This last

---

[1] See N. M. Penzer, *KSS* trans., vol. 5, p. 175 ff., and especially Franklin Edgerton, "Pañcadivyādhivāsa or Choosing a King by Divine Will" in *JAOS 33*, 1913, p. 158 ff. for full discussion and references. See also Stith Thompson: *Motif Index of Folk Literature*, and Stith Thompson and Jonas Balys: *Motif and Type Index of the Oral Tales of India*, entries H 171, "King selected by elephant's bowing to him"; N683, "Stranger accidently chosen King. Picked up by sacred elephant"; and T63, "Princess's husband selected by elephant bowing to him". References in Thompson and Balys are very numerous, and the tales come from all parts of the Sub-continent.

[2] *PP* 6.231-43.

[3] 6.236: *pañcadhivyāny abhiṣiktāni mantribhiḥ*; more usually the instruments are 'imbued' (*adhivāsitāni*) with divine power, Edgerton, *loc. cit.*

[4] *Vikramacarita* story 14, in the Southern and Metrical Rescensions, cited by Edgerton, *ibid.*, p. 159.

[5] *KSS* 10.9.23-4, trans. vol. 5, p. 155.

element is found in a story in the *Kathākośa*; [1] and in the *Jātakas*, when the king dies without heirs, the chariot of state, loaded with the five royal insignia and yoked to four lotus-coloured horses, is sprinkled by the house-priest and, attended by the fourfold army and followed by musicians, comes upon the sleeping Bodhisattva, who at first turns over on his other side, but finally accepts office.[2]

The fact that the elephant in Justin's story picks Candragupta up and puts him on its back recalls these selection stories; but the fact that the elephant was wild, but approached Candragupta "as if tamed to gentleness" suggests that the story may also have been influenced by that of Nālāgiri.[3] This was the name of a fierce elephant from the royal stables of Ajātaśatru, whom Devadatta caused to be intoxicated and set upon the path of the Buddha. When the elephant was bearing down upon him, a woman dropped her child in terror at the Buddha's feet; and as the elephant was about to attack the child, the Buddha spoke to him, suffusing him with love, and stroked his head. Nālāgiri, overcome, sank to his knees and learned the *dharma* from the Buddha. In this way was the wild elephant "tamed to gentleness". These parallels are sufficiently close to permit no doubt as to the Indian origin of the Classical tale.

We may note in passing that Tarn assigns a passage from Plutarch which is of undoubted Indian provenance to the same source from which the Justin extract we have been discussing has come: "But when a certain man named Menander, who had been a good king of the Bactrians, died in camp, the cities celebrated his funeral as usual in other respects, but in respect to his remains they put forth rival claims and only with difficulty came to terms, agreeing that they should divide the ashes equally and go away and should erect monuments to him in all their cites." [4] Menander was of course a king of India, not Bactria, and the quarrel about who should have

---

[1] Tawney's trans., p. 4, cited in Edgerton, *op. cit.*

[2] The *phussa-* or *mangala-ratha* motif in *Jāt.* 378, 445, 529 and especially 539. Similarly the idol is regarded as being 'asleep' until the installation, when by awakening songs and dances, it is 'imbued' with divinity (*adhivāsya*). So Varāhamihira's *Bṛhatsaṃhitā* 60.15 quoted in Edgerton, p. 165: *suptām* (sc. *pratimām*) *sunṛtyagītair jāgarakaiḥ samyag evam adhivāsya, daivajña-pradiṣṭe kāle saṃsthāpanaṃ kuryāt.* This is the sense of the *adhivāsana* ceremonies daily performed in the great South Indian temples, which begins with the playing of music and exhortations to the god to awake.

[3] *DPPN* sv. Nālāgiri.

[4] *Moralia* 821 D, E, trans. Harold North Fowler. Tarn, *op. cit.*, pp. 45-50: 'Trogus' source'.

his ashes, their division amongst several cities, and the raising of
stūpas over them is a replica of the story of the Buddha's funeral.
Here, then, is another clear instance of Indian legend in Classical
literature, in this case from the cycle of legends which gave birth
to the *Milinda Pañha* and Menander's posthumous fame throughout
Buddhist lands.[1] Thus about the beginning of the Christian era
fragments of the *Cāṇakya-Candragupta-Kathā* and also of a *Milinda-
Kathā* reached the West.

Finally we must briefly look at Plutarch's testimony that Candra-
gupta, when a mere youth, met Alexander. Such a story, if true,
cannot be of Greek origin; the members of Alexander's expedition
would not have remembered an obscure Indian youth. It could have
come from an Indian source, even from Candragupta himself; or it
could be a Greek fabrication, to bring Alexander into contact with
the greatest Indian king known to the Greeks, much as Plutarch, in
the same passage (and this is undoubtedly invention), says that
even to the present day the kings of the Praisiai (of whom Candra-
gupta had been one) cross the river to make offerings "in the Hellenic
fashion" on the twelve altars Alexander had erected to mark the
limit of his eastward advance. I believe the story of Candragupta's
meeting with Alexander is false. It could be true; but to see in this
doubtful meeting the source of Candragupta's vision of empire is
in the same spirit as, and only a little more credible than, Plutarch's
stretcher about the altars.[2]

The earliest dateable fragments of the *Cāṇakya-Candragupta-
Kathā*, then, are preserved in Classical literature. The question
arises whether we can infer anything from these fragments about
the original form of the *Kathā*, more primitive than that we have
arrived at by a comparison of Indian literary sources. What, to
take the most striking example, are we to make of the fact that
Cāṇakya is not known in Classical literature, and that Justin
ascribes to Candragupta what the extant Indian versions ascribe
to his minister—for Cāṇakya *did* offend Nanda by his impudence,
Nanda *did* order him killed, or rather captured, in the *Mahāvaṃsa*

---

[1] It is of course unnecessary to suppose (Tarn, *op. cit.*, p. 47) that 'Trogus'
source' knew the story of the *Mahāparinibbāna Sutta* and that *stūpas* were
raised to dead *cakravartins*, unless 'Trogus' source' was the Indian with
whom the legend began.

[2] George MacDonald in *CHI*, p. 386; Charles Alexander Robinson, Jr.:
Alexander the Great, p. 173. Taken rather differently in *PHAI*, p. 268.

Ṭīkā, and the brahmin *did* "seek safety in the swiftness of his feet". May we conclude that Cāṇakya was unknown to early legend and is a later invention to whom were ascribed certain of Candragupta's exploits in the earlier form? Or has Trogus made one character out of two?

I believe it would be most unwise to infer anything from the silence of the Classical texts. Not only are the passages we have been considering brief and secondary (we would especially like to know what Trogus himself said), but they are foreign as well, so that the chances for the survival of characters who were otherwise unknown and episodes which were unintelligible to the Classical authors were small. Where some agreement is to be found between an Indian and a Classical story, as in the story of Nanda's barber-father, and the fact that Diodorus and Curtius on the one hand and the Purāṇas on the other divide the Nandas into two generations, they reinforce each other; but where there is no corroboration from Indian sources, for example as to whether the lion-omen is original and central to the *Kathā*, we have no basis for judgement, and the mere priority of the extant Classical sources is of little consequence. With the elephant-omen we are in a better position, for at least we have enough material with which to construct a theory, namely that the Greeks have transferred the motif from the story of the Nanda to Candragupta, the Magadhan king best known to them. For Nanda's baseness and tyranny are well known both to Classical and Indian literature, and when in Justin we find these characteristics attributed to Candragupta, together with the elephant-omen proper to Nanda, we may at least suspect that distinct elements of Indian legend have been coalesced to make them compact and portable for their long journey westward.

The Cāṇakya of History

A good deal of ancient Indian history seems to have been written on the principle that when good sources are lacking, bad sources become good. Consider the proposed identification of the Porus of the Alexander-historians with the Parvata(ka) of the Indian sources. This identification is made on the grounds that the *Mudrārākṣasa* places Parvataka in the Northwest, giving him Yavana or Greek allies (ignoring the Śakas, Hūṇas, and their ilk); the Pali and Jain versions are said to substantiate this to the extent of sharing a tradition of attack from the edges of Nanda's domain (the bowl

5

of gruel!). But as I have argued, the troop lists of the *Mudrārākṣasa* show a proliferation of barbarians, which is itself a sign of lateness (in addition to the anachronisms) and these are quite naturally, if not designedly, drawn from those of the Northwest. Not only do the Jain and Pali accounts fail to corroborate this detail, they contradict it; according to the Jain version, Parvata was king of Himavatkūṭa, which should be vaguely north, not the Punjab, and the Pali apparently makes the campaign begin from the Vindhyās (Viñjhāṭavi).[1] Yet the tale that Porus helped Candragupta, while it is not explicitly fostered today, still survives under the surface of historical writing, not only in the most commonly accepted date of Candragupta's accession, 321 B.C., but even that of the Buddha's *Parinirvāṇa*, 483 B.C., derived from it with the aid of the Ceylonese traditions. Actually the Ceylonese tradition dates the Buddha quite independently in 486 or 485, giving Candragupta a date of c. 324 B.C., a fact too seldom recognized.[2] It is much more likely that in accord with what Justin has to say Candragupta seized Magadha first, before advancing on the Punjab which, in the wake of Alexander's death and with the growing power of Magadha, was falling into anarchy.

There are other sources from which to reconstruct the history of Candragupta's reign, especially the fragmentary account of Megasthenes, however difficult to interpret, and brief passages such as Pliny's, to the effect that Seleucus ceded Gedrosia, Arachosia, Paropamisadae and Aria to Candragupta, with which Tarn has dealt so harshly and recent archeology so kindly. But there is nothing exterior to the *Cāṇakya-Candragupta-Kathā*, I would argue, which provides the story of Candragupta's rise to power with the independent support it so badly needs.

The idea that the attack on Nanda began on the frontier, even the

---

[1] Cāṇakka and Pabbata fly to the Viñjhāṭavi; thence Cāṇakka and Candagutta attack Nanda; when their army is broken they wander through the *janapada* and start afresh on the edge of the kingdom. The place is unspecified.

[2] I refer to the 'Dotted Record' which is a Ceylonese document in China, not an independent Chinese dating. P. H. L. Eggermont: *The Chronology of the Reign of Asoka Moriya*, ch. 6, scrutinized the Record, but failed to take sufficient account of its Ceylonese origin, or to recognize that Geiger's date of 483 B.C. for the Buddha is approximate only, resting on the (also approximate) date of 321 for Candragupta. See now W. Pachow, "A Study of the Dotted Record", *JAOS 85*, 1965, p. 342 ff. for some further ambiguities in the testimony. The claims for the Dotted Record are not, of course, historical, but it shows the existence of a Ceylonese tradition for the date, which otherwise would be a matter of inference only.

idea that a preliminary attempt on the heartland was repulsed, could well be historical, since they can be told without recourse to the 'bowl of gruel' story, while the 'bowl of gruel' story cannot stand without them, and might therefore be seen as a later development in the career of the *Kathā*. But given the charming but preposterous story of the gruel and the vague, descriptive name of Parvata, the hill-king, we can only adopt a cautious course and say, it may have been. The *Cāṇakya-Candragupta-Kathā* provides evidence. What we need is something more like proof.

The entire legend can, of course, be called in question. Scepticism, however, is a poor substitute for criticism. For in a legend such as this, concerned with historical figures, apparently of early origin and of great duration and geographical scope, it is more economical to suppose that it has a basis in fact than that it is a pure product of the imagination. No doubt it has the character of folklore and has suffered the common fate of folklore in its transmission. But I believe it provides sufficient grounds to believe that Cāṇakya is as historical a figure as Nanda or Candragupta. His name, unlike Parvata's, gives us no reason to doubt this,[1] and although as hero of the story his role *vis-à-vis* Candragupta is no doubt exaggerated, it must have been a prominent one to have become current in folk literature. To doubt Cāṇakya's existence places a greater strain on the imagination: some other origin for the stories of him would have to be found.

Quite another matter, however, is the question of Kauṭilya and the *Arthaśāstra*.

---

[1] Parvata, '(man of the) mountain', is obviously a descriptive name, Cāṇakya is not. Kauṭilya looks suspiciously like a nickname: it means 'crookedness' It is however a *gotra* name, to be found in the early lists. T. Burrow ("Cāṇakya and Kauṭalya", *Annals of the Bhandarkar Oriental Research Institute 48-49* 1968, p. 17 ff.) has now shown that Cāṇakya is also a *gotra* name, which in conjunction with other evidence makes it clear that we are dealing with two distinct persons, the minister Cāṇakya of legend, and Kauṭilya the compiler of the *Arthaśāstra*. Furthermore, this throws the balance of evidence in favor of the view that the second name was originally spelt *Kauṭalya* and that after the compiler of the *Arth.* came to be identified with the Mauryan minister it was altered to *Kauṭilya* (as it appears in Āryaśūra, Viśākhadatta and Bāṇa) for the sake of the pun. We must then assume that the later spelling subsequently replaced the earlier in the *gotra* lists and elsewhere. This seems to me the best view of a perplexing mass of evidence on a question which Jolly once said, with memorable understatement, could occupy the deliberations of a college of paṇḍits for months. I retain the spelling *Kauṭilya* only because, like Āryaśūra and the others, I find it so appropriate to the nature of the text to which it is attached.

CHAPTER THREE

THE *ARTHAŚĀSTRA* AND THE STATISTICAL METHOD
IN AUTHORSHIP PROBLEMS

Content and Style

The opening chapter of the *Arthaśāstra* is a table of contents,
giving a complete list of the topics contained in each book and a
reckoning of the total number of books, chapters, topics and *ślokas*
in the entire work. The remainder of Book 1 contains a definition
of *arthaśāstra* in its relation to other works, a discussion of ministers,
royal agents and princes, and rules for the king's personal life.
Book 2, entitled *Adhyakṣapracāra* ('Activity of the Overseers') is
much the longest and most important in the entire work; it deals
in great detail with all subjects of the internal administration of the
kingdom. Book 3, one of the longer ones, is a systematic exposition
of the law, while Book 4, concerned with the detection and
punishment of crime, also contains a good deal of legal material.
Book 5 is a miscellany which concludes the discussion of the internal
affairs of the kingdom: secret punishment and replenishing the
treasury by dubious means; the salaries of the king's men; the
conduct proper to servants and courtiers; and the steps the minister
should take when the king dies to secure the integrity of the king-
dom. The sixth book introduces foreign affairs in two short chapters,
leading to the long Book 7 on the six measures of foreign policy
(*ṣāḍguṇya*). Book 8 interrupts the scheme somewhat by discussing
the vices which kings must avoid, together with calamities of the
various elements of the state. Book 9 discusses marching to war:
the proper times, the types of troops, the dangers, etc., and Book 10
takes up the subject of war itself: camps, battlegrounds, battle-
arrays. The eleventh book is very short, consisting of a single chapter
on means by which the king should undermine the tribal states.
Book 12 advises the weaker king on how to deal with his enemies,
by assassination, instigation, fire, poison, and trickery. Book 13
describes the taking of a fort and the pacification of newly conquered
lands. Book 14 contains spells, potions, and occult means generally
by which the enemy may be deceived and his troops harmed, and
one's own troops protected, very much in the spirit of the Atharva-

vedic lore. The final book (*Tantrayukti*) analyzes the rhetorical figures used in the *Arthaśāstra* into 32 types, such as indication, analogy, implication, and the like, quoting passages from the body of the work in illustration of each of these. Similar analyses may be found in the medical *saṃhitās* of Caraka and Suśruta.

The language of the text shows some archaisms:[1] gerunds in -*tva* of compound verbs in the causative, potential passive participles used in an active sense, and words or senses for known words which if they cannot with confidence be called archaic, are, in any case, peculiar, and some of them remain obscure. There is a good number of words hitherto known only from the lexicons, and these "illustrate the connexion of the *Arthaśāstra* with the popular language, and may indicate a later rather than an earlier date" for it.[2] There are some Prakritisms and *deśi* words.

Cross-references within the *Arthaśāstra* are fairly numerous and heighten the economy and sense of unity of the text. Typically a subject is dismissed with an expression ending in *vyākhyātaḥ* (e.g. 2.29.34), indicating that the subject is to be understood by extension of the preceding passage. More rarely references are made to later parts of the book using *vyākhyāsyāmaḥ* (e.g. 7.14.11). Reference is sometimes made to other topics or books by title (e.g. 5.6.15, 17, 22), sometimes without title (6.1.7, 9). References to other topics or books tend to increase in frequency as one progresses through the text.

One of the most striking characteristics of the *Arthaśāstra* is the frequency and manner with which earlier authorities are cited.[3] These authorities may be the schools of the *śāstra*, individual teachers, or the teachers (*ācāryāḥ*) generally. In 25 places opinions are cited which are attributed to the schools: Bārhaspatyas, Auśanasas, Mānavas, Pārāśaras and Āmbhīyas. In 28 places the views of individual teachers are given, and the order of citiation is generally the same, though the whole list of authorities may not be cited on any one occasion: Bhāradvāja, Viśālākṣa, Puśuna, Kauṇapadanta, Vātavyādhi, Bāhudantīputra. Except for the

---

[1] See Kangle, Part 3, pp. 38-9; J. Jolly, *Indo-Germanische Forschungen 31*, 1912-13, p. 204 ff.

[2] T. Burrow, *JRAS*, 1967, p. 40.

[3] See H. Jacobi, *SKPAW*, 1912, p. 832 ff.; Kangle, Part 3, p. 42 ff.; and above all, the excellent comprehensive study by F. Wilhelm, *Politische Polemiken im Staatslehrbuch des Kauṭalya*, on which I rely in this paragraph.

Pārāśaras who are usually cited after Viśālākṣa among the individual teachers, the two classes of authorities are not quoted together. Finally, in 59 cases the opinions of the *ācāryas* are quoted, twice those of *eke* and once that of *apare*. Usually one or a number of authorities within a group are cited, followed by *neti Kauṭilyaḥ* and the concluding view. The opinions of the schools are stated dogmatically without justification or discussion. Occasionally the individual teachers are made to refute the opinion of the teacher just quoted (1.8, 1.15, 1.17). In the third chapter of Book 8 there is a very intricate scheme of debate in which Kauṭilya refutes singly the opinions of the individual teachers as to the relative gravity of a pair of vices, giving arguments in favor of the better and against the worse, treating thus the first two, then the second and third, then the third and fourth of the list of lust-born vices. The scholarly debates which emerge have an air of artificiality about them, and Wilhelm has shown that the style and vocabulary of the individual teachers' opinions are uniform with that of the rest of the text.[1] Sometimes the view of an individual teacher or of the *ācāryas* is quoted without rebuttal, and sometimes an opinion is followed by *iti Kauṭilyaḥ*, even where no opposing views have previously been cited.

Structure

The text of the *Arthaśāstra* is broken up into 15 books (*adhikaraṇas*), 150 chapters (*adhyāyas*, literally 'lessons'), and 180 topics (*prakaraṇas*).[2]

Each book deals with a different subject, and has a title which is named in the table of contents (1.1) and in the colophons at the end of each chapter. They are numbered one to fifteen in the table of contents and the colophons. The books vary greatly in length, and may contain only one chapter and topic.

Chapters are numbered serially from the beginning of each book; they have no titles, and they vary considerably in length. Each chapter ends with at least one *śloka*, typically a summarizing or a memorial verse (*kārikā*); where the argument of the prose is continued in the concluding verses, the very last verse or two is generally

---

[1] Wilhelm, p. 10 *et passim*.
[2] In the first paragraphs of this section I rely on Kangle, Part 3, p. 25 ff. and L. Renou, "Sur la forme de quelques textes Sanskrits", *JA 244*, 1961, p. 183 ff.

of the summarizing kind. Verses occasionally appear within the prose portion of the text, and some of these internal verses occur in the citations of earlier authorities. There are a few *triṣṭubhs* and *jagatīs* in Book 2 and a few hypermetric or otherwise irregular *ślokas* are met with, chiefly in Book 14. Only once (10.3.29) are verses introduced with a standard formula, in this case *apīha ślokau bhavataḥ*. Each chapter ends with a colophon giving the title and number of the book, the title of the topic or topics and the number of the chapter, reckoned both from the beginning of the book and from the beginning of the entire text.

The text is further divided into topics by subject matter. In general the topics contain a single, well defined subject. They may be very short, often dismissing a subject in a single sentence by reference to a preceeding discussion. Where a chapter contains more than one topic, the end of the first topic is often marked by a simple *iti* or an expression in *iti* (e.g. 1.18.12 where the end of the topic entitled *aparuddhavṛttam* is announced by *ity aparuddhavṛttam*) or some other device such as a nominal construction with *iti/tu* defining the end of one topic and the beginning of the next (e.g. 3.16.28-9: *ity asvāmivikrayaḥ/svasvāmisambandhas tu . . .*). Some of the endings are unmarked and difficult to identify. Topics have no colophons of their own, and are not numbered in the chapter colophons.

This triple division of the text of the *Arthaśāstra* contains a number of anomalies which call for explanation. The chief of these is that the chapter and topic boundaries overlap. At the one extreme topic 116, *mitra-hiraṇya-bhūmi-karma-sandhayaḥ*, 'Pacts for Securing an Ally, Money, Land and an Undertaking', is spread over four chapters (7.9-12) by dividing it into sub-topics (*mitrasandhi* and *hiraṇyasandhi, bhūmisandhi, anavasitasandhi,* and *karmasandhi*); at the other extreme five topics (103-7) are fitted into a single chapter (7.4). Occasionally a single chapter contains part of a topic and the whole of the next (e.g. 1.12 containing part of Topic 7 and the whole of 8).

The scheme of books and topics is quite clear and rational, being based on subject matter, but it is difficult to see on what principle the division into chapters was made. Certainly it was not subject matter, for then there would be no need to duplicate the scheme of topics, nor, for instance, would the offices of the superintendent of passports and of the superintendent of pastures have been lumped in one chapter (2.34, topics 52, 53). One would presume the object

to have been to group topics into 'lessons' of equal length, so nearly as that was possible without disturbing too much the integrity of the topics. But if so, it is difficult to account for such things as the spreading of Topic 1 over three short chapters (1.2-4) totalling 35 *sūtras* on the one hand, and the failure to subdivide 2.12, topic 30, the longest chapter of the text at 117 *sūtras*, into two or more chapters, as elsewhere has been done.

There is one remaining anomaly. The first chapter of the *Arthaśāstra* is unique in containing no topic. One of the manuscripts (the Devanāgari) gives it a title in the colophon, *Prakaraṇādhikaraṇasamuddeśa*, although no other chapter has a title, only the books and topics; and yet it is clear from the fact that according both to the statement in 1.1.18 and from a count in the text itself that there are the right number of topics, 180, without considering chapter 1.1 to contain a topic.

When we turn to two works which are heavily indebted to this text, so much so that we can call them heirs of the *Arthaśāstra,* we find the scheme of internal divisions has been rationalized. The *Nītisāra* of Kāmandaka draws from the *Arthaśāstra* more by the way of content than of form; Vātsyāyana's *Kāmasūtra* closely follows its form but is naturally different in content.

The *Nītisāra* opens by invoking Viṣṇu (1.1), then Viṣṇugupta (1.2-6), "who, resembling Śaktidhara Skanda, by his power and the power of his counsel brought the earth to that moon among men, Candragupta" and "who extracted the glorious ambrosia of *nītiśāstra* from the ocean of *arthaśāstra.* This abridgement," it continues, "preserving the sense, (has been made) out of love for the kingly science from the system of him who, of keen intellect, fathomed the depths of the sciences".[1] Thus Kāmandaka himself characterizes his work as an abridgement of Kauṭilya's *Arthaśāstra.*

The *Nītisāra* (unlike the *Arthaśāstra*) is a wholly metrical work, containing some 1224 verses, or about a quarter of the extent of the *Arthaśāstra* as we now have it. Kāmandaka does not draw impartially from all parts of the *Arthaśāstra.* Book 1 of the *Arthaśāstra,* apart from the table of contents (1.1), is best preserved in the *Nītisāra*; Books 2, 3 and 4 are almost entirely passed over, in spite of the fact that Book 4—*Kaṇṭakaśodhana*—shares its title with *Nītisāra* 6, topic 15. Books 5 to 10 are represented in whole

---

[1]   *darśanāt tasya suddṛśo vidyānāṃ pāradṛśvanaḥ |*
     rājavidyāpriyatayā saṅkṣiptagrantham arthavat || 1.7

or part in the *Nītisāra* but very little if anything of Books 11 to 15.
The *Arthaśāstra* material is often much compressed but there is
additional material from the Epics and from other *arthaśāstras*,
including quotations which cannot be traced in the *Arthaśāstra*,
though the *Arthaśāstra* quotes most of the authorities named in
other contexts.[1] Yet, perhaps 70 % of the *Nītisāra* derives directly
or indirectly from the *Kauṭilīya Arthaśāstra*.

The *Nītisāra* is divided into chapters (*sargas*) and topics (pra-
karaṇas). Colophons occur at the ends of chapters, as in the
Arthaśāstra.[2] There are 20 chapters and 36 topics: a chapter may
contain as few as one and as many as six topics, but topics are
never spread over more than one chapter. The body of the chapter
is in *ślokas*, with verses in ornate metres at the end (there are a
few exceptions), generally of the summarizing kind, much as the
ends of *Arthaśāstra* chapters are marked by summarizing verses; a
few verses in these metres are sometimes found in the body of the
chapter. Thus while Kāmandaka's book departs considerably from
the form of the *Arthaśāstra*, it is possible to see formal analogies
between them, and a simplification and rationalization of the
Arthaśāstra's scheme of textual divisions in the adoption of only
two divisions as against the *Arthaśāstra*'s three, and the elimination
of overlapping between chapters and topics.

The *Kāmasūtra* of Vātsyāyana shows great stylistic affinities to
the *Arthaśāstra*.[3] The opinions of earlier anonymous authorities,
individual authors and schools are quoted and sometimes rebutted
in the *Arthaśāstra* manner. Though the content is, of course, much
different, the *Kāmasūtra* uses enough of the rarer terms of its
predecessor that a translator ignores the *Arthaśāstra* at his peril.
Kāmasūtra 5.5.8, for example, tells us how the *sūtrādhyakṣa* should
approach widows, unprotected women and women who have left
their homes, to form sexual liaisons. K. Rangaswami Iyengar
translated *sūtrādhyakṣa* as 'law officer'. But the topic of the

---

[1] 5.88 Bṛhaspati   8.28 Viśālākṣa
     8.5   Bṛhaspati   8.39 Pārāśara
     8.20 Maya   9.57 Bharadvāja
     8.21 Puloma   9.60 Bṛhaspati
     8.22 Uśanas   10.18 Bāhudantisuta
     8.23 Maya or Maharṣi   10.19 Mānavas
     8.24 Mānavas   11.39 Bṛhaspati

[2] In Ganapati Sastri's ed. there are topic colophons in lighter type.

[3] F. Wilhelm, "Die Beziehungen zwischen Kāmasūtra und Arthaśāstra,"
ZDMG 116 1966, p. 291 ff., is the best of many discussions of this subject.

Arthaśāstra (2.23, topic 40) devoted to this functionary makes it clear that he is a superintendent of yarns, in charge of the king's looms, employing widows and other sorts of women who are cast adrift and who otherwise would be without protection and livelihood. It thus becomes clear who the *sūtrādhyakṣa* is and how he has access to these women. Moreover some of the expressions characteristic of the *Arthaśāstra* recur in the *Kāmasūtra*, as *samānaṃ*, *pūrveṇa*, 'and so on, exactly as before', and constructions with *vyākhyātaḥ*.

Of interest to us is that the *Kāmasūtra* preserves the three-fold division of its text into *adhikaraṇas*, *adhyāyas* and *prakaraṇas*, or books, chapters, and topics, with the usual features such as titles only for books and topics, and memorial verses and colophons only at the ends of chapters, such as in the *Arthaśāstra*. But each chapter consists of one or more topics; a topic is never parcelled out among several chapters, and chapter size does not vary so enormously as in the *Arthaśāstra*. There are, no doubt, formal differences between the two works. The *Kāmasūtra* has no *Tantrayukti* at the end, and though it has a first chapter containing a table of contents, it differs in listing the number of chapters and topics in each book, and in giving a genealogy of the *śāstra*. The opening chapters of the two works are similar in that they give a reckoning of the total number of books, chapters, topics and *ślokas* (units of 32 syllables each) in the respective works and in opening the table of contents with identical expressions: *tasyāyāṃ prakaraṇādhikaraṇasamuddeśeḥ* (*Arth.* 1.1.2, *Kām.* 1.1.19 f.). They differ again, however, in that the first chapter of of the *Arthaśāstra* contains no topic (and, in all but one manuscript, no title) while the first chapter of the *Kāmasūtra* is also the first topic, entitled precisely *Prakaraṇādhikaraṇasamuddeśa* as in the Devanāgari manuscript of the *Arthaśāstra*. Thus the anomalies in the structure of the *Arthaśāstra* have been resolved in the *Kāmasūtra*.

The anomalies of the *Arthaśāstra*'s scheme of chapters and topics has only seldom been remarked upon. Winternitz did so in a footnote and concluded that the division into chapters seems to be the work of a later redactor.[1] Keith drew the same conclusion,[2] but

---

[1] *Geschichte der indischen Litteratur* vol. 3, p. 510, n. 1: "In dem Buch selbst ist aber jeder Hauptabschnitt in eine Anzahl Kapitel (adhyāya) eingeteilt, die nur teilweise mit den Prakaraṇas zusammenfallen. Es scheint, dass diese Adhyāya-Einteilung das Werk einer späteren Redaction ist."

[2] Keith, p. 452: "There is the possibility that this division (into adhyāyas) is secondary, possibly also the verses which mark it out."

Kangle drew none.[1] Renou, sensible to the implication that if the division into chapters was a secondary development, the verses terminal to the chapters must be regarded as "a foreign corpus adjoined to a received text", found that "ordinarily they are of no use to the argumentation and certain formal indices show that the end of the prose coincides with the end of the reasoning. Nevertheless certain compact groups of verses have their utility in perfecting a doctrine; and, what is more telling, there are several signs indicating that there is a continuity in sense between the prose and the verse." He concluded, "The question cannot be resolved without nuances." [2]

No doubt there are nuances. Nevertheless I hold that there is excellent reason to regard the division into chapters, the terminal verses, the entirety of *Arthaśāstra* 1.1 with its table of contents and its enumeration of book, chapter, topic and *śloka* totals and, since it refers to the first chapter, Book 15 (*Tantrayukti*), as the work of a later, tidying and organizing hand, reworking a text already divided by books and topics, and already possessing an adequate introduction in *Arthaśāstra* 1.2. When one considers the significance of the anomalies of the work's structure, beside the clear structure of the *Nītisāra* and above all of the *Kāmasūtra*, one can say not merely that the heirs of the *Arthaśāstra* have rationalized its organization in their own works, but that no single author working from scratch would be likely to create such anomalies.

Once it is accepted that the division into chapters is secondary, it follows that the terminal verses and colophons must also be secondary, for they would have no place in a work divided by topics. The occasional usefulness of the verses to the argument of the prose, or occasional continuity with the prose scarcely weighs against their usual lack of utility and continuity. Then, the first chapter of the book could not have been completed, and need not have been composed before this reorganization, since the following chapter (1.2) itself forms a suitable introduction to a pre-existing work, and the table of contents and enumeration of books, etc., presuppose a finished work. Finally, if 1.1 as a whole is the work of a later redactor, it follows that Book 15 is as well, since in quoting 1.1.1, 3 (15.1.5, 6) it presupposes a finished opening chapter.

---

[1] Kangle, Part 3, pp. 25-6.
[2] Renou, *op. cit.*, pp. 185-6, paras. 2, 3.

In particular this organizing hand must be the author of 1.1.18: "The enumeration of this treatise amounts to fifteen Books, one hundred and fifty Chapters, one hundred and eighty Topics and six thousand *ślokas.*" This reorganization must have taken place before Vātsyāyana, whose work duplicates its every feature (except the *Tantrayukti*), including the passage just quoted, which finds a correspondence in *Kāmasūtra* 1.1.88, where we are told the work contains seven books, thirty-two chapters, sixty-four topics and twelve hundred and fifty *ślokas.*[1] These numbers are not arbitrary: there are 64 topics, for example, because there are 64 *kalās* or arts of the courtesan.[2] And this gives us a clue to two of the anomalies of the *Arthaśāstra*'s structure; for, given the desire to redivide the work into chapters or lessons of reasonable size, the wish to achieve significant, round numbers of chapters and topics may have compromised the principle of (roughly) equal size and the first chapter was then not made a topic so as not to exceed the figure of 180 topics.

To this organizing hand must also be ascribed the opening passage of the *Arthaśāstra* (1.1.1):

pṛthivyā lābhe pālane ca yāvanty arthaśāstrāṇi pūrvācāryaiḥ prasthā-pitāni prāyaśas tāni saṃhṛtyaikam idam Arthaśāstram kṛtam.

Kangle translates thus:

This single (treatise on the) Science of Politics has been prepared mostly by bringing together (the teachings of) as many treatises on the Science of Politics as have been composed by ancient teachers for the acquisition and protection of the earth.

The phrase 'the teachings of' is an emendation which interprets

---

[1] The reorganization must also have preceded the times of Daṇḍin, who says (*Daśak.* p. 131, 11.10-12): *adhīṣva tāvad daṇḍanītim. iyam idānīm ācārya-Viṣṇuguptena Mauryārthe ṣaḍbhiḥ ślokasahasraiḥ saṃkṣiptā.* "Learn, therefore, the science of politics. Now this has been abridged in six thousand *ślokas* by the teacher Viṣṇugupta for the Maurya." This and the corresponding *Arthaśāstra* statement have led some scholars to suppose that the extant work is a prose version of a lost *arthaśāstra* entirely in *ślokas.* They failed to recognize an implication of this hypothesis, namely that the *Kā-masūtra*, which gives its length as 1250 *ślokas*, would then also need a lost verse original. But the prose *Kāmasūtra* copies the prose *Arthaśāstra*, so the argument collapses. *Śloka* here means a unit of 32 syllables, as in the titles of the Prajñāpāramitā literature. I have discussed the matter in *JAOS 88*, 1968, pp. 347-349.

[2] Wilhelm's article cited above considers the significance of these numbers at length.

the passage in a way which the bare wording of it does not warrant. On the other hand Kangle is probably right in taking the gerund *samhṛtya* in the sense of 'having brought together, collected', though the sense 'having condensed' cannot be ruled out since Daṇḍin, equating it with *saṃkṣip-*, 'abridge' takes it so.[1] In any case, many *arthaśāstras* of previous (not necessarily 'ancient') teachers were brought together or condensed, to make a single *Arthaśāstra*. This could be understood in two ways: either the contents, the 'teachings' of these *arthaśāstras* were digested and a new *arthaśāstra* composed; in this case we could not deny the composer the style of 'author'. Or, these *arthaśāstras*, understood as monographs, have been brought together (or perhaps condensed) between two covers to form a single comprehensive work. I assert that the second best fits the plain meaning of the words, without recourse to emendation.

This theory of the composition of the *Arthaśāstra* then, ascribes to the organizing hand we have inferred this task of selecting and assembling previous works into a larger *arthaśāstra*; and since the verses were added (though not in every case composed) by him, it further involves that this organizer called himself Kauṭilya (1.1.19, 2.10.63, 15.1.73) whether rightly or wrongly.

It may be objected that the various observable features of style, the 'polemics', the cross-references, the peculiar expressions and terms, which pervade the work and give it its appearance of unity, could not have been found in independent works; and it must be conceded that a certain amount of reworking by the organizer and even original writing to provide linkages between the independent works in probable in this theory. Such well-defined features of style, because they are obvious and amenable to traditional methods of analysis, are the basis of the general scholarly agreement on the *Arthaśāstra*'s stylistic unity. But these features are by no means evenly spread throughout the work; and so, however uniform they may be among themselves, when we take their distribution into account they cease to be evidence of homogeneity. For example, there are no citations of earlier authorities in Books 4, 6, 11, 13 and 14, only one in Book 5 and two in Book 2,[2] while Book 8 is

---

[1] See p. 76, footnote 1. Kāmandaka calls his abridgement a *saṃkṣipta-grantha* (1.7).

[2] Kangle, Part 3, p. 53.

overloaded with them. We can scarcely expect traditional methods of stylistic analysis, therefore, to verify or falsify the hypothesis I have advanced concerning the *Arthaśāstra*'s history. But another method exists—the statistical.

The Statistical Method in Authorship Problems

Some thirty years ago G. Udney Yule inaugurated the statistical study of authorship problems with a paper entitled, "On Sentence-length as a Statistical Characteristic of Style in Prose: With Application to Two Cases of Disputed Authorship." [1] This paper was Yule's first attempt to resolve by statistical means the problem of the authorship of the *Imitatio Christi* as between Thomas à Kempis and the Sorbonne theologian Félix Gerson. The method consisted in comparing the sentence-length distribution within the work with those in the known writings of Thomas and Gerson and to assign authorship where the agreement was close. A second attempt consisted of a comparison of the size of noun vocabularies in the three, and resulted in a book entitled *The Statistical Study of Literary Vocabulary*.[2] In this book Yule proposed a characteristic of vocabulary size, K, which is independent of the size of the text under investigation.

Since Yule's work appeared, a number of authorship studies employing statistical methods have been made. William C. Wake has been the most active in devising means of using sentence-length distributions as discriminators of authorship, and has done further work in comparing noun vocabularies.[3] Wake's work on the Hippo-cratic Corpus enabled him to define a group of works in the Corpus emanating from one hand which on other grounds can reasonably be identified with Hippocrates.

Of particular interest to historians of India is Alvar Ellegarde's study of the Junius letters, which Ellegarde was able to show were written by Sir Philip Francis, a member of the Council for Bengal who was instrumental in securing the impeachment of Warren Hastings.[4] Ellegarde rejected the sentence-length test and the K-

---

[1] *Biometrika 20*, 1939, p. 363 ff.

[2] Cambridge, 1944.

[3] *Greek Medicine in the 5th and 6th Centuries B.C.*, M.Sc. Dissertation, London, 1946; *The Corpus Hippocraticum*, Ph. D. Thesis, London, 1951.

[4] *Who was Junius?*, Stockholm, 1962, and *A Statistical Method for Determining Authorship: The Junius Letters, 1769-1772*, Göteborg, 1962. The first is more historical, the second, statistical.

test as having insufficient discriminating power to distinguish the author of the Junius letters from all possible candidates. Instead he confined his attention to those preferences of word and expression which we usually think of as constituting an author's peculiar vocabulary or style. The Junian material was read through and a tentative list of distinctively Junian words and expressions ('plus-words') was drawn up, and a million-word sample (109 text items by 98 different authors, including all Junian candidates, all contemporary) was read through and a list of words and expressions distinctive of them but not of Junius was drawn up. Preliminary testing showed Sir Philip Francis was linguistically the best candidate, so a 231,000 word text mass of his was also read. Four hundred eighty-five items of the original list were then registered on charts, according to where they occurred in Junius, Francis, and the million-word sample. The items were grouped according to their 'distinctiveness ratio', i.e. the percentage of occurrences in Junius divided by the percentage of occurrences in the million-word sample, giving Junius plus-words (distinctiveness ratio 1 +) and minus-words (between 1 and 0). Alternatives (burden/burthen, has/hath, farther/further) were separately treated. Francis fell within the 'Junian range' in each 'distinctiveness group'; he was the only writer to do so, though some others fell within it in some of the groups. The probability of more than one author having all the Junian characteristics thus defined was calculated at one in 462,000. If it is accepted that Francis belonged to that .01 % of the population of Britain who wrote like Junius, then the bag containing Junius and Francis must be reduced to 300 for the identification to be made at the 99 % level of confidence, to employ the statistician's odd way of putting things. "Francis, as well as Junius was among the public audience who heard Lord Chatham's speeches in the House of Lords on the Middlesex election, as well as on the Faulkland Islands, in 1770. That fact in itself is enough to place them both in the same group of at most a few hundred persons." [1]

Ellegarde's method, while most admirable in its workings, is unlikely to have many imitators, because it requires large masses of text, because it is extremely laborious, and because easier approaches have been found. Ellegarde says, "The words most frequently used in the language—articles, prepositions, conjunctions, and pronouns

---

[1] *A Statistical Method for Determining Authorship*, p. 63.

as well as the commonest verbs, nouns, adjectives and adverbs—
are necessarily about *equally* frequent in all texts, whoever the
author. And this means in effect that the large majority of the
positively or negatively distinctive words will belong to the fre-
quency ranges below 0.0001, or one per ten thousand." [1] "By and
large, therefore, the most frequent words—making up perhaps 80 %
of any normal text—will be of little use for identification
purposes." [2]

Subsequent studies have shown, however, that there can be great
differences in the frequencies of common words between different
authors, that indeed it is the "utterly mundane high-frequency
function words" which prove the best discriminators.[3] And besides
the obvious advantage that high-frequency words have in yielding
a sufficient number of occurrences for statistical use from smaller
samples, such words are the least affected by the subject-matter
under discussion, being distributed more or less evenly from one
work to another within the corpus of a single author regardless of
content.

A study of this sort which deserves to become a classic was made
by Frederick Mosteller and David L. Wallace in which the author-
ship of the disputed *Federalist* papers was decided between Madison
and Hamilton.[4] Discriminators were chosen from a 'screening set'
of texts, half of them written by Madison and half by Hamilton,
words, such as *an, of, upon,* which had markedly different rates of
occurrence in the two authors. These words were weighted according
to their discriminating power, and grouped; their performance was
then observed in a 'calibrating set' of texts from both authors, to
observe and correct the effects of selection and weighting. Finally
the disputed papers were examined and scores assigned according
to the occurrence of the discriminators in them. The main part of
Mosteller and Wallace's study was based on Bayes' Theorem, and
is at once more powerful and unfortunately less comprehensible to
the scholars most interested in the *Federalist* papers as documents.

Of more direct relevance to our own work, because it deals with

---

[1] The same, pp. 15-16.
[2] The same, p. 18.
[3] Mosteller and Wallace, (below, n. 4), p. 304.
[4] "Inference in an Authorship Problem" in *J. of the American Statistical
Association 58*, 1963, p. 275 ff. and *Methods of Inference Applied to* The
Federalist, Reading, Mass., forthcoming.

authors for which no outside works exist, is the study of the Pauline Epistles, by the Rev. A. Q. Morton.[1] Morton's problem was to separate the Pauline Epistles from the non-Pauline. His chief method was to compare the distributions of *kai, en, autos, einai* and *de* (occurrences per sentence) in the various Epistles by the chi-square test, together with sentence-length statistics. He found that *Romans, 1st* and *2nd Corinthians* and *Galatians* can be regarded as homogeneous and, on other grounds, as Pauline, but no other Epistle with the possible exception of *Philemon*, which is too short to reach a decision. Sentence-length and word distributions had first been examined in the works of Demosthenes, Herodotus, Isocrates, Lysias, Plato and Thucydides to establish their stability within authors and their discriminating ability between authors.

The only studies of this sort which have so far been made in Sanskrit texts are those of Professor R. Morton Smith on the stories of Ambā, Nala and Śakuntalā in the *Mahābhārata*. Smith explored a number of possible tests by which to separate the various hands in these stories: the *vipulā* pattern and *vipulā:pathyā* ratio; the ratio of vocatives which refer to characters within the story to those which refer to the listener; the frequency of the different forms in the past tense; the frequency of suppressed *asti*, gerunds, absolutes and participles; the kinds of nominal compounds; the frequencies of particles such as *atha, api, eva*. Smith's pioneering studies want verification of the supposed tests in material of known authorship, and significance testing to help decide which differences are merely due to sampling variation and which are due to differences of authorship. His more recent study of the *Bhagavadgītā* speaks to the latter need by employing a simple criterion of significance, namely the existence of a difference in statistics between two texts such that $X + 20\%$ is less than $Y - 20\%$, X being the smaller statistic. [2]

---

[1] "The Authorship of Greek Prose", *J. of the Royal Statistical Society* Series A *128*, 1965, p. 169 ff.

[2] "The Story of Ambā in the Mahābhārata", *Adyar Library Bulletin 19*, 1955; "The Story of Nala in the Mahābhārata", *J. of the Oriental Institute, Baroda 9*, 1960, p. 357 ff.; "The Story of Śakuntalā in the Mahābhārata", *J. of the Bihar Research Society 46*, 1960, p. 163 ff. I am indebted to Professor Smith for the loan of these articles, and a typescript copy of his as yet unpublished article, "Statistics of the Bhagavadgītā". I understand he is undertaking further work on these lines which promise to fill the gap I have mentioned.

6

Dr. Barend A. van Nooten's fascinating metrical and linguistic studies arising from his mechanical concordance of the *Sabhāparvan* of the *Mahābhārata* (which came to my hands only after I had completed my own statistical work) furnish much excellent data of relevance to the solution of authorship problems, and his further inquiries will no doubt yield much more.[1]

A Pilot Study of the Arthaśāstra

When I was first attracted to the problem of the authorship of the *Arthaśāstra,* the studies of Morton and of Smith came to my attention. I decided to make a simple pilot study to find whether the statistical method could here be applied.

I drew up a list of particles. First *ca* ('and') on the analogy of Greek *kai,* which had proved so useful in Morton's work on the Epistles; then a list derived from Smith's Nala article: *atha, api, eva, evam, tatas, tathā, tadā, tu, hi*; finally *vā* ('or'), which in going through the text I quickly found to be of high frequency.

Two samples of 300 sentences each were taken from the second book of the *Arthaśāstra,* starting from the first *sūtra,* the second sample beginning where the first left off (Samples 2-I and 2-II). The third sample, of the same size, was taken from Book 7, which seemed to me very different in character from Book 2. A fourth came from Book 9, Book 7 being not quite long enough to yield two samples. Only the prose portions were included in the samples; verses were passed over, even where they occurred within the prose body of the text, because of their very different stylistic properties.

In Table 3.1 I give total occurrences for the 11 particles in the four samples.

Most of the particles are of fairly low frequency, with the brilliant exceptions of *ca* and *vā*; *atha, tathā* and *tadā* are so rare as to be of little use in samples of this size. Among the remainder, there is a fair

---

[1] "The Śloka in the Sabhāparvan" and "Redundancy in Mahābhārata Verse Composition", unpublished papers, copies of which I owe to the kindness of the author; the second is now published in *JAOS 89* 1969, pp. 50-58. Van Nooten's concordance of the *Sabhāparvan* was announced in "A Mechanical Concordance for a Sanskrit Work", *JAOS 85* 1965, pp. 55-57. A mechanical concordance of the *Udānavarga* was announced in an article by Franz Bernhard, H. Reul, F. Schulte-Tigges and H. Sunkel, "Erstellung von Konkordanzen zu Sanskrittexten durch elektronische Rechenanlagen", *Linguistics 22* 1966, pp. 5-23.

TABLE 3.1

Total occurrences of particles in four samples from the *Arthaśāstra*

Sample	atha	api	eva	evam	ca	tatas	tathā	tadā	tu	vā	hi	total
2-I	0	3	5	1	102	5	0	0	1	54	6	177
2-II	0	1	9	3	111	4	2	0	0	73	1	204
7	0	16	11	12	65	1	0	8	16	182	32	343
9	2	6	9	6	71	11	1	3	7	135	21	272

measure of agreement between the figures for samples 2-I and 2-II on the one hand and between 7 and 9 on the other, and something of a difference between the two pairs, except for *eva* where the two pairs overlap, and *tatas* where 7 and 9 differ by 10 occurrences, the samples from Book 2 falling in between. Samples 7 and 9 use considerably more of the particles listed than 2-I and 2-II. A striking difference between the two pairs of samples is the fact that 2-I and II use more *ca*'s than *vā*'s, while the reverse holds for samples 7 and 9.

TABLE 3.2

Ca: vā ratio in four samples from the *Arthaśāstra*

Sample	ca	:	vā
2-I	1.9	:	1
2-II	1.5	:	1
7	.36	:	1
9	.53	:	1

A more detailed picture of the treatment of the two particles with the highest frequency, *ca* and *vā*, can be got by considering the number of occurrences per sentence. In Table 3.3 I give the figures for *ca*, in Table 3.4, those for *vā*.

TABLE 3.3

Occurrences of *ca* per sentence in four samples from the *Arthaśāstra*. In sample 2-I there are 209 sentences containing no *ca*'s, 81 sentences containing 1 *ca*, etc.

Occurrences	Sample			
	2-I	2-II	7	9
0	209	200	253	246
1	81	90	32	41
2	9	9	12	9
3	1	1	3	4

It will be seen that samples 2-I and 2-II conform to each other very closely, that 7 and 9 are much alike and that the two pairs differ markedly from each other, 7 and 9 dropping more abruptly between no occurrences and one, and presenting a slightly thicker tail.

TABLE 3.4

Occurrences of *vā* in four samples from the *Arthaśāstra*

Occurrences	Sample			
	2-I	2-II	7	9
0	258	237	192	214
1	36	54	74	61
2	2	8	19	15
3	2	1	7	4
4	2	—	3	2
5	—	—	2	1
6	—	—	1	2
7	—	—	—	1
8	—	—	—	—
9	—	—	1	—
10	—	—	—	—
11	—	—	—	—
12	—	—	1	—

Considering the distribution for *vā*, again the agreement between 2-I and 2-II is good (though not so close as was the case with *ca*); that between 7 and 9 is good; and the divergence between the two pairs is striking. In particular 7 and 9 (especially 7 with its sentence containing no less than 12 *vā*'s) have much longer tails.

The question arises whether the differences between the two pairs of samples is significant of anything other than sampling variation, whether they are not merely due to chance, as we like to say. Everyone will concur that, given a bowl containing those marbles so beloved of statisticians, of which 10 % are blue and the rest white, one would not in every case draw precisely one blue marble in every handful of 10 taken when blindfolded. At the same time, the probability of drawing 8, 9 or 10 blues is rather small, and the probability of drawing, say 10 blues in three successive tries is so remote as to make us regard it as a highly significant departure from our expectations, such that we would be well advised to see whether the marbles are thoroughly mixed between tries, and whether the blindfold is securely tied. Significance testing is just

this measuring of the probability of the departure from the expected of observed values.

These probabilities tell us the likelihood of so large a divergence or larger occurring through sampling variations and form a continuum from 100 % (in the case of perfect agreement between observation and expectation) to 0 % (in the case of perfect disagreement). We cannot say dogmatically at what level of probability a divergence must be regarded as 'significant' in this sense, of course; but for practical reasons we must fix such a level, and it is usual to regard the 5 % level (that is, a divergence between observed and expected values such that it could occur through sampling variation in one out of 20 or more cases) as 'probably significant', the 1 % level (one out of a hundred or more cases) as 'significant', and the .1 % level (one out of a thousand or more cases) as 'highly significant'.

A significance test of great versatility is the chi-square (χ^2) test. Let us suppose that our four samples are drawn from a single statistical population and that the divergence between the observed distribution of *ca* is due simply to sampling variation. The expected values will then lie between the four samples, and since the samples are of equal size, the expectation can be calculated by taking simple averages of the rows, as in Table 3.5.[1]

TABLE 3.5

Observed and expected values for *ca* in the *Arthaśāstra*

	Sample				
Occurrences	2-I	2-II	7	9	Expectation
0	209	200	253	246	227
1	81	90	32	41	61
2+	10	10	15	13	12

The chi-square test tends to exaggerate the divergence where the expectation is very small, say below 5 for any cell of the table, and so we have to pool the figures for 2 and 3 occurrences per sentence, thus making the comparison somewhat less detailed.

---

[1] Where samples are of different sizes the expectation is calculated by finding row and column totals, and the grand total; the expectation for each cell of the table is found by multiplying its proper row and column total, and dividing by the grand total.

Chi-square is given as

$$\chi^2 = \sum \frac{(O - E)^2}{E},$$

or the sum of all quantities obtained by squaring the differences between the observation and the expectation, and dividing by the expectation. For instance, sample 2-I has 209 sentences containing no *ca*'s, which is the observed value, or 'observation'. The expectation is 227 sentences containing no *ca*'s. Substituting in the above equation we get:

$$\frac{(O - E)^2}{E} = \frac{(209 - 227)^2}{227} = \frac{324}{227} = 1.4 \text{ approximately.}$$

Computing in this way for each of the observed values in Table 3.5 and summing the results we find that chi-square has a value of 51.4. The next step is to determine the number of 'degrees of freedom' (d.f.). We find that the 12 values of Table 3.5 are arranged in three rows and four columns. We then multiply one less than the number of rows (3 rows — 1 = 2) by one less than the number of columns (4 columns — 1 = 3) to find the number of degrees of freedom (2 × 3 = 6 d.f.). It is then necessary to consult tables of chi-square to evaluate the result.[1] There we find that at six degrees of freedom, chi-square is 22.5 at the .1 % level. With the calculated value of chi-square at 51.4 greatly exceeding the .1 % level, we can say the probability that the differences between the samples is merely sampling variation is extremely small, such as would occur less than one out of a thousand cases, or, in other words, that the differences are highly significant. We conclude that the samples do not come from the same population.

Now let us look at the two samples from Book 2. Assuming that they came from the same population, observation and expectation are as in the following table:

TABLE 3.6

Observed and expected values for *ca* in the *Arthaśāstra*

| Occurrences | Sample | | Expectation |
	2-I	2-II	
0	209	200	204.5
1	81	90	85.5
2+	10	10	10
	$\chi^2 = .67$; d.f. $= 2$		

[1] E.g. those in *Biometrika Tables for Statisticians*, vol. 1, ed. E. S. Pearson and H. O. Hartley.

Entering the results in tables of chi-square we find that it falls somewhere between the 50 % and 75 % levels, i.e., random variations of this magnitude could be expected to occur in over fifty out of a hundred cases. The result is therefore non-significant. It is important to note that a non-significant result does not prove the hypothesis that the two samples come from a single population; it merely means it is not disproven, or, in other words, that we have no reason to doubt the hypothesis on the basis of the available data.

The samples from Books 7 and 9 are also very close to each other.

TABLE 3.7

Observed and expected values for *ca* in the *Arthaśāstra*

	Sample		
Occurrences	7	9	Expectation
0	253	246	249.5
I	32	41	36.5
2+	15	13	14
	$\chi^2 = 1.35$; d.f. = 2		

This result is almost precisely at the 50 % level ($\chi^2 = 1.386$).[1] Our hypothesis that the two samples come from a single population has not been disproved.

The chi-square test yields similar results when applied to the figures for *vā*. Observation and expectation for samples 2-I and 2-II are these:

TABLE 3.8

Observed and expected values for *vā* in the *Arthaśāstra*

	Sample		
Occurrences	2-I	2-II	Expectation
0	258	237	247.5
I	36	54	45
2	6	9	7.5
	$\chi^2 = 5.09$; d.f. = 2		

The result falls between the 10 % ($\chi^2 = 4.6$) and 5 % ($\chi^2 = 6.0$) levels; hence the differences between the values for 2-I and 2-II

----

[1] It may help the reader to evaluate χ^2 by inspection if he remembers that χ^2 and d.f. are roughly equal at the 50% level, and that the probability diminishes as χ^2 exceeds d.f.

are such as could occur in one out of 10 to 20 cases, were they from the same statistical population. We may take it that there is no reason to doubt the hypothesis.

For the samples from Books 7 and 9 the figures are given in Table 3.9.

TABLE 3.9

Observed and expected values for *vā* in the *Arthaśāstra*

| | Sample | | |
Occurrences	7	9	Expectation
0	192	214	203
1	74	61	67.5
2	19	15	17
3	7	4	5.5
4+	8	6	7

$\chi^2 = 4.02$; d.f. $= 4$

This result, lying between the 50 % level ($\chi^2 = 3.6$) and the 25 % level ($\chi^2 = 5.4$), is non-significant. The longer tails of the distributions for *vā* in these two samples permit us a more detailed comparison, and hence a more exacting test.

Taking all four samples together the figures are as follows:

TABLE 3.10

Observed and expected values for *vā* in the *Arthaśāstra*

| | Sample | | | | |
Occurrences	2-I	2-II	7	9	Expectation
0	258	237	192	214	225.25
1	36	54	72	61	56.25
2	2	8	19	15	11
3+	4	1	15	10	7.5

$\chi^2 = 55.3$; d.f. $= 9$

Differences of this magnitude in a single population are practically beyond the pale of possibility. For at nine degrees of freedom, in one out of a thousand or more cases a value of 27.9 for chi-square would result; how much more rarely a result of 55.3 would occur may be imagined. And the results for *ca* and *vā* taken together must surely be proof enough that a great disparity exists between Books 2 on the one hand and Book 7 and 9 on the other, that the *Arthaśāstra* is not a homogeneous work.

Strategy

In performing this pilot study I had assumed that the source of divergence was difference in authorship. And this is a reasonable assumption to make. If the statistical method will work in Latin, Greek and English, we may presume it will work in Sanskrit; and *ca* and *vā* are just the "utterly mundane, high-frequency function words" which have shown themselves so useful in other, similar studies. Nevertheless, this assumption cannot pass untested, for there are other possible sources of significant divergence, of which the most serious is context. Books 2 and 7 of the *Arthaśāstra* are very different in subject-matter, after all, and though it may seem probable that an author uses *ca*, let us say, at a given rate regardless of the context, the matter must first be verified in texts of known authorship, covering a variety of subjects, before drawing conclusions from its distribution in the *Arthaśāstra*.

Though the assumption that a given word is a good discriminator of authorship can be tested, it cannot be proved, but only disproved. No matter how much control material we use, a non-significant result always has the character of a verdict of 'not-guilty', not a proof of innocence. The conclusions we finally reach on the structure and composition of the *Arthaśāstra*, then, are always subject to further verification and, conceivably, disproof.

It should further be borne in mind that even where we have a competent discriminator, a non-significant result for two works by no means proves common authorship; for it will often turn out that two authors will have similar rates for some words just as a great number of people, probably the greater part of the world's population, will answer to the description, 'brown eyes and black hair'. If two works show non-significant differences for a number of characteristics, the presumption of common authorship is strengthened. But again it can only be disproved, never proven, in the strictest sense.

Our strategy will be to draw up a sizeable list of potential discriminators; to test them for homogeneity within works of known authorship, and for differences between authors; and to determine whether we are justified in seeing more than one hand at work in the prose sections of the *Kauṭilīya Arthaśāstra*. We want also to determine whether sentence-length is a useful discriminator in Sanskrit, as it has proved on occasion in English and Greek. Finally,

since Sanskrit makes frequent recourse to lengthy compounds, we want to see whether compound-length is a characteristic which can distinguish one author's work from another's. With this variety of approaches, my theory of the composition of the *Arthaśāstra* can be put to the test.

CHAPTER FOUR

WORDS AS DISCRIMINATORS

In the classical form of an authorship problem the choosing of words which are good discriminators of authorship is greatly simplified. In that form, a text is ascribed variously to two or more writers for which we have other works, more or less extensive, whose ascription is not in question. Undoubted works of the candidates form the control material from which to selects words which are (1) of high frequency and (2) of even distribution within authors but (3) of different rates of distribution between authors. The frequencies of these words in the disputed work are then determined and authorship is attributed to the candidate whose known works most closely conform to them.

In the *Arthaśāstra* problem, however, things are much different. All its authors, if there are more than one, must be assumed to have left no other surviving works, and thus we must look elsewhere for control material. Let us see how that affects the search for good discriminators, according to the three criteria I have named. The requirement that the word be of high frequency is of increasing importance the smaller the texts under study. Since we will wish to treat the authorship of each book of the *Arthaśāstra* separately, evidently we want words of the highest frequency. Without examining word frequencies in the *Arthaśāstra* itself, and thus jeopardizing the independence of our selection of words, we can easily find high-frequency words in a complete word-index to a representative Sanskrit work. But the requirement of high frequency needs qualification: we are looking for words which occur at high frequencies in one author, but low in another, and to restrict ourselves to high-frequency words from an outside work may deny us the use of some words which are rare in that outside work but abundant in the text we wish to study. This difficulty does not arise in the classical form of the problem, since the control material includes writings from the authors of the disputed text. As for us, we can never be sure that words occurring at high rates in the *Arthaśāstra* are not eliminated on account of their rarity in the control material. This difficulty cannot be overcome; it must be lived with.

The second criterion of a good discriminator is that it be evenly distributed within an author's work. Here the form of our problem offers us no disadvantages over the classical form; at the same time, we can never prove the proposition that a given word is always evenly distributed within authors, regardless of context, and other possibly disturbing factors. We can, from a preliminary word list, eliminate those which are unevenly distributed in any one of as many authors as we include in our control material, and have confidence in the residue as the size of that control material increases, but there must always remain a doubt, however small, that in some author or some text these words may not be evenly distributed. This, however, is the status of any scientific proposition: it has not been disproved in experiment, but the critic can always seek to do so.

Finally, a good discriminator must occur at different rates in different authors. Clearly, to establish a small difference in rates, the disputed text must be large, and this is not the case with the books of the *Arthaśāstra*; hence we will want words with very different rates in different authors. The non-occurrence of such a word in one work may be of great importance, if it occurs at a high rate in another (I give an example below). But here the student of an authorship problem in its classical form has the great advantage that he can determine the rates for a given word for the two or so candidates from the control material, and assess words for their discriminating ability, so that suitable words may be selected and weighted according to their usefulness in the problem at hand. In our form of the problem the best we can hope from our control material is some idea of the relative value of different discriminators; we cannot assign weights, and we select what appear to be good discriminators, and hope that they prove effective.

This catalogue of difficulties suggests that a fair measure of luck, as well as a great deal of careful work, is essential to the successful outcome of an authorship problem of our sort. For what is a good discriminator on some occasions is poor on another. Color of eyes is a poor discriminator of men: a great number share the same color, just as a fair number must share rates identical or indistinguishable from each other for the use of a certain word. (We may hope to improve the position by using several discriminators in combination.) It also suggests a plan of procedure: the drawing up of a preliminary word-list; the elimination form that list of words which prove to

be unevenly distributed in control material; and a rough assessment of discriminating ability between the various words of the control material. Let us cross our fingers and proceed.

The Preliminary List

Although no studies of this sort had previously been made on Sanskrit works, I was not entirely at sea in drawing up a preliminary list of words. Studies by Mosteller and Wallace in English prose suggested that it is the "utterly mundane high-frequency function words" which prove the best discriminators; studies in Greek offered in *kai* an anology to Sanskrit *ca*; and my own preliminary skirmish with the *Arthaśāstra* added *vā*. I had, besides, in Pathak and Chitrao's word-index to Patañjali's great grammatical work, *Mahābhāṣya*, what must be a rarity for any work in any language, an absolutely complete word-index.[1] Every word, however common-place, is given a page-line reference to Kielhorn's edition. Where the word occurs more than once on the same line, the reference is repeated as many times. A spot-check failed to reveal any errors in the index; indeed where there at first appeared to be discrepancies the fault proved in every case to have been mine.

Another consideration in drawing up the preliminary list was the need to limit it to a manageable length, in search of that accuracy which Pathak and Chitrao have so admirably achieved. How long a list is manageable? I found that about thirty words are a safe limit, for that allows columns running the width of foolscap mark-sheets of sufficient breadth to avoid the danger of entering words in the wrong column when tabulating 'by hand', and is about as many words as one can keep watch for simultaneously when entering the mark-sheets or preparing texts for the electronic computer to make the collection of data. No doubt a good number more would have been eminently desirable, but bitter experience has repeatedly impressed me with the difficulty of achieving accurate counts of

---

[1] Pt. Shridharashastri Pathak and Pt. Siddheshvarashastri Chitrao: *Word Index to Patañjali's Vyākaraṇa Mahābhāṣya.* A sentence from the Forward (p. 2) by V. G. Paranjpe seemed to have been written for us: "The Index, even in those portions which appear to be useless, would furnish very useful data to the student ... who wants to study the frequency of the common words of the language like *api, evam,* or *ca* or of the different verbs, or of the prepositions which accompany them." Shamasastry's *Index Verborum to the Published Texts of the Kauṭilīya Arthaśāstra* omits the very words which interest us.

even so few words, and I thought it better to strive to build solidly than grandly.

What sort of words? Indeclinables, for their high frequency and probable independence of context, certainly; nouns, for the opposite reasons, certainly not. Verbs offer the possibility of examining the use of compound verbs, suppressed *asti* and the like, but they seemed to hold out much less hope than indeclinables, and promised only to complicate the process of collecting the data, with attendant dangers to accuracy. Pronouns were given up only with much regret, for a variety of reasons, of which the decisive one was the desire to keep the scheme as simple as possible. I restricted my list, then, to indeclinable particles.

No single clear criterion by which to choose the words presented itself. Some were chosen by leafing through the word-index to spot the high-frequency words by the number of entries; many, by hunch, a frail but necessary guide in the absence of any other; and some, the correlatives (*yatas . . . yāvat*), for completeness' sake (they proved worthless in the event).

I give in Table 4.1 a list of some words in Patañjali arranged in order of frequency, including all the 32 words of our preliminary list preceeded by their number in Sanskrit alphabetical order, as well as four pronouns and one noun (*śabda*) for the sake of comparison. I estimate the word-index, and hence the *Mahābhāṣya*, contains 278,000 words, based on the average number of words in a spread sample of forty columns multiplied by the number of columns in the word-index. It will be seen that *iti*, the commonest word of the *Mahābhāṣya*, occurs five or six times a hundred words, and few have rates higher than 1 %.

No doubt the preliminary list thus arrived at is imperfect. The word *tarhi* is of high frequency in Patañjali, but it was excluded on the belief that this was idiosyncratic, a decision I have never come to regret. On the other hand, *katham*, of moderate frequency (five out of a thousand in Patañjali) was excluded by oversight. The correlatives could have been profitably replaced by some of the commoner pronouns. But for better or ill a decision had to be taken.

Now the *Mahābhāṣya* is, of course, a commentary, and it is the purpose of commentaries to explain the text to which they are attached, in this case Kātyāyana's *Vārttikas* on Pāṇini's *Aṣṭādhyāyī*. Because they are not 'pure', that is, because the text of the original conditions and 'contaminates' the commentary, I did not expect

TABLE 4.1

Some word frequencies in Patañjali. Words included in the preliminary
list are preceded by a code number

Word	Occurrences	Frequency
5. iti	15778	.0568
19. na	9466	.0341
11. ca	6993	.0252
tat (all forms)	5851	.0210
idam (all forms)	4360	.0157
4. api	4316	.0155
etat (all forms)	4106	.0148
8. eva	3086	.0111
9. evam	2331	.00838
7. iha	2105	.00757
29. vā (with athavā)	2073	.00746
2. atra	1960	.00705
25. yathā	1688	.00607
32. hi	1625	.00585
14. tatra	1506	.00542
3. atha (with athavā)	1411	.00508
22. punar	1306	.00470
27. yadi	1139	.00410
20. nanu	617	.00222
śabda	607	.00218
18. tu	543	.00195
17. tāvat	524	.00188
12. cet	517	.00186
13. tatas	475	.00171
adas (all forms)	427	.00154
1. atas	315	.00113
24. yatra	313	.00113
10. khalu	297	.00107
21. nāma	286	.00103
15. tathā	256	.000921
26. yadā	237	.000853
16. tadā	209	.000752
30. vai	134	.000482
28. yāvat	119	.000428
6. iva	104	.000374
23. yatas	45	.000162
31. ha	16	.0000576

to find the words of our list to be evenly distributed throughout the *Mahābhāṣya*. But because I had recorded for each word the number of occurrences in the commentary on the *Pratyāhāra Sūtras* and each of the eight chapters of Pāṇini, it was a simple matter to determine the discrepancy between observed and expected values by the chi-square test. Taking Kielhorn's edition, the number of lines of commentary in each chapter were counted and then divided by the total number of lines to arrive at the proportions of the whole work represented by each chapter. These proportions multiplied by the total occurrences of a word gave the expected number of occurrences for each word in each chapter.

The result abundantly confirmed my doubts. Of the 32 words of our list, only seven showed non-significant [1] deviations from the expected values, none of them words of very high frequency: *atas*, *tatas*, *tathā*, *nanu*, *yatra*, *yadi*, *yāvat*; while 18 were significant at .1 %. The only satisfaction gained from the exercise was the fact that the noun *śabda* ('sound', 'word') had the highest value of chi-square of all the words, an astronomical 920.3, as compared with 144.2 for *ca*, the runner-up, both at 8 degrees of freedom. Of the pronouns only *etat* was non-significant, the other three being significant at .1 %. The performance of three words is shown in Table 4.2.[2]

TABLE 4.2

Distribution of three words in Patañjali's *Mahābhāṣya*. P = *Pratyāhāra Sūtras*. There are 8 degrees of freedom in each case.

	P	1	2	3	4	5	6	7	8
Proportion of total work	.0339	.2551	.1057	.1309	.0929	.0684	.1627	.0828	.0672
yadi									
observed	44	296	110	147	116	75	176	94	81
expected	39	291	120	149	106	78	185	94	77
				$\chi^2 = 3.60$					
ca									
observed	289	2080	729	1000	626	484	952	458	375
expected	237	1784	739	915	650	478	1138	579	470
				$\chi^2 = 144.2{*}{*}{*}$					
śabda									
observed	147	219	69	57	14	31	39	18	13
expected	21	155	64	80	56	42	99	50	41
				$\chi^2 = 920.3{*}{*}{*}$					

[1] 'Non-significant' here and throughout means a probability greater than 5%.

[2] It is of little interest to reproduce the full table; figures may easily be recovered from Pathak and Chitrao.

Such then is our preliminary list of words. We must now test them for homogeneity in original works.

Control Material: Metrical Works

In analyzing prose texts we are faced with the dilemma whether to gather our data in the form of occurrences of words per sentence, and so have two variables (occurrence of words and sentence-length) which may show some correlation, or, on the contrary, to divide the text up into blocks of even length and record the occurrences of each word in each block. On the face of it the second is preferable, but the greater difficulty in collecting data in that form—it can scarcely be done without recourse to the computer—has to be weighed against it.

This decision was deferred by resorting in the first instance to metrical works. These texts were all in *ślokas*, that is, were already divided into blocks, or sentences if you like, of equal length. A second factor leading to this course was the large number of texts in *ślokas*: I believed a contribution to authorship studies in metrical texts could thereby be made. Finally it is much simpler to collect data from metrical works, since this can be done directly onto mark-sheets, while for prose texts it was necessary to prepare a skeleton text for the computer, which then did the collection. Inaccuracies can be made in mark-sheets, but this can equally occur in preparing and punching a text for the computer, which moreover takes a good deal of time. In the end, the use of metrical texts had an unexpected bearing on the choice of prose texts.

I wanted, then, texts which were entirely in *ślokas*; which were not commentaries; the unique authorship of which I was reasonably assured; of a fair length, to allow an adequate test of homogeneity within works; and for which satisfactory editions existed. It is very difficult to adhere rigorously to all of these conditions, especially the last, and I shall have more to say on the problem of dealing with badly edited texts.

Three metrical texts were selected. Kalhaṇa's *Rājataraṅgiṇī* [1] was chosen for its all-round excellence, especially its length, and the opportunity it afforded of contrasting its distribution of particles with that of its continuator, Jonarāja.[2] For something more akin

---

[1] Ed. M. A. Stein.
[2] *The Rājataraṅgiṇī of Kalhaṇa*, ed. Durgāprasāda, son of Vrajalāla,

7

to the *Arthaśāstra* in range and subject-matter, I chose the *Māna-sollāsa* ascribed to Someśvara III Cālukya, though perhaps written by one of his *paṇḍits*.[1] Samples were in every case of 300 *ślokas*; where ornate metres intruded, they were passed over. Except for the second, each book (*taraṅga*) of Kalhaṇa provided a sample, starting with the first *śloka* of each book. The text of Jonarāja has no divisions, containing about 1500 *ślokas* numbered from beginning to end without interruption. Three samples were taken, beginning with the verses numbered 2, 500, and 1000. The five books (*viṃśatis*, 'scores') of the *Mānasollāsa* yielded four samples, Book 1 being too short.

Mark sheets were prepared by drawing a grid of 32 columns running the breadth of a foolscap sheet and 15 rows the length. The columns were rubricated with the words of our preliminary list. A stencil was cut to this pattern and some 300 mark-sheets thus reproduced. Each *śloka* of each sample was assigned a row, and the figures for the occurrences of words were entered in the appropriate cells of the grid. I found it reasonable to do an hour and a half of such marking a day, first thing in the morning. Two hours were difficult, and in three, words were overlooked, columns began to change places, and the work had to be done over. In spite of all precautions, the nature of tedious work is such that errors have probably crept in unnoticed; but I believe that they are not so great or so unevenly distributed as to significantly affect the result.

I present in Appendix Tables 1 and 2 the distribution of the words of our preliminary list in the 4200 *ślokas* or perhaps 70,000 words of text examined in this way. I reserve comment on them for the present, except to say that serious difficulties appeared in Kalhaṇa due to the presence of large amounts of dialogue in some books, which had important consequences in my choice of prose material. Kalhaṇa will be fully discussed at the end of this chapter.

Control Material: Prose Works

My original plan had been to use the works of Bāṇa for control material. The stability of rates for words could then be examined not only within and between the *Harṣacarita* and the *Kādambarī*, but tested for their ability to distinguish Bāṇa's prose from that

---

vol. 3, containing the supplements of Jonarāja, Śrīvara and Prājyabhaṭṭa, ed. P. Peterson.
[1] Ed. G. K. Shrigondekar.

of his son Bhūṣaṇa Bhaṭṭa or Bhaṭṭa Pulina, who, in writing the concluding portion of the unfinished *Kādambarī*, strove no doubt to imitate his father's style. Daṇḍin would furnish a similar opportunity as between the genuine portions of the *Daśakumāracarita* and one or other of its later supplements. But the evidence from Kalhaṇa, alluded to in the foregoing and fully discussed in the final section, to the effect that dialogue has an upsetting effect on the rates of words, made me abandon this otherwise excellent plan. While ways of overcoming this difficulty may be devised, or other statistical tests unaffected by the presence of dialogue may be found, it seemed the course of wisdom to confine myself to expository prose.

The works chosen were Somadeva Sūri's *Nītivākyāmṛta*, [1] an *arthaśāstra* heavily indebted to the *Kauṭilīya*, and Gaṅgeśa's important treatise on logic, *Tattvacintāmaṇi*.[2] Samples of 300 sentences each were taken. The *Nītivākyāmṛta* was found to contain 1519 sentences in the edition used, so that the last 19 were discarded, giving five samples; three samples were taken from Gaṅgeśa's work, from the beginning of Books (*khaṇḍas*) 1, 2 and 4, Book 3 being too short. In all, this amounted to about 20,000 words of text (10,042 for Somadeva, 10,222 for Gaṅgeśa, reflecting the much longer sentences of the latter).

I had first intended to prepare the texts in full for the computer, so that they might be of use to anyone wishing to prepare word-indexes of these works and of the *Arthaśāstra*. But the complications this plan involved, leading to an enormous amount of additional labour which would only bear fruit in a hypothetical future, persuaded me that the plan would delay the work in hand so much and impose on my almost unaided efforts so great a burden as to be impractical. Therefore, with considerable regret, I took counsel in the maxim, *varam adyaḥ kapotaḥ śvo mayūrāt*, 'better a pigeon today than a peacock tomorrow', and prepared a skeleton text of the samples.

Since I was interested in the words outside our list of 32 only as counters in drawing up tables of sentence-length and the like, and not at all in their identity or semantic content, such words were replaced by an 'X'. Nominal compounds were represented as a string of contiguous X's corresponding to the number of members

---

[1] Two vols. with anon. commentary, ed. Śrīmat Paṇḍita Pannālāla Sonī. Vol. 2 contains important corrections to the first.
[2] Ed. Pt. Kāmākhyānātha Tarkavāgīśa.

in a compound, to enable me to study the usefulness of compound-length as a test of authorship. (Proper names were not treated as compounds.) The words of the preliminary list were represented in upper case without diacriticals. Thus a sentence of the skeleton text might look like this:

<div align="center">XX X API NA X X X.</div>

This represents *Nītivākyāmṛta* 24.14:

dhana-hīne Kāmadeve 'pi na prītiṃ badhnanti veśyāḥ.
"Courtezans have no affection for a pauper, be he the God of Love himself."

The skeleton allows us to find that the sentence contains seven words, one of which is a two-member compound, and two of which are words of our list. When patterns of holes corresponding to the characters of the skeleton text are punched in paper tape or cards, the text is in a form which enables the computer to collect the data and arrange it in tables.

Use of the computer allowed me to gather data on my preliminary list in two different ways simultaneously and thus base my choice of method on a comparison of the two: occurrences per sentence and, what would in itself be impracticable unaided by computer, occurrences per block of 20 words. In the second method the computer itself divided up the text into lengths of 20 words, artificial 'sentences' of equal length. Any remainder after the text was so divided was ignored, involving a wastage of 1 to 19 words at the ends of most samples, and accounting for occasional slight discrepancies between the total number of particles in a given sample as counted by sentences on the one hand, and by 20-word blocks on the other.

The 20-word block method proved the more suitable in two ways. In the first place there is a small but undoubted positive correlation between occurrence of particle and length of sentence. Contingency tables for the occurrence of *ca* in the five samples of Somadeva and the three of Gaṅgeśa may be found in Table 4.3.

The correlation coefficient for Somadeva is .341 and .552 for Gaṅgeśa, where a value between 0 and 1 indicates positive correlation. Both these proved extremely significant by Student's t-test ($t = 14.0$, d.f. $= 1498$ for Somadeva; $t = 19.9$, d.f. $= 898$ for Gaṅgeśa), extremely significant, that is, of a weak correlation, for

TABLE 4.3

Sentence-length and occurrence of *ca* in Somadeva and Gaṅgeśa

(a) Somadeva

Sentence-length (words)	Ca (occurrences)			
	0	1	2	3
1—	584	36	—	—
6—	602	122	4	1
11—	71	46	2	—
16—	8	8	3	1
21—	4	2	1	—
26—	2	—	1	—
31—	1	—	—	—
36—	—	—	—	—
41—	—	—	—	—
46—	—	—	—	—
51—	—	—	—	—
56—61.	—	—	1	—

(b) Gaṅgeśa

Sentence-length (words)	Ca (occurrences)					
	0	1	2	3	4	5
1—	215	33	—	—	—	—
6—	149	104	4	—	—	—
11—	98	80	20	2	—	—
16—	27	27	14	3	—	—
21—	21	20	7	2	1	—
26—	9	8	11	3	1	—
31—	1	3	5	6	1	—
36—	3	2	2	1	2	—
41—	—	—	5	2	—	1
46—	—	1	1	—	—	—
51—	—	2	—	—	1	—
56—	—	—	—	—	—	—
61—66.	—	—	2	—	—	—

only a small amount of the variability of the values on the tables must be ascribed to correlation. The results of an analysis of variance are given in Table 4.4.

This result is no more than one would expect. But sentence-length itself proved extremely variable in Gaṅgeśa, from one sample to the next.

TABLE 4.4

Correlation of *ca* and sentence-length

	Mean	Total variance	Regression variance	Residual variance
Somadeva				
ca	.163	.160	.019	.141
sentence-length	6.695	13.1	1.5	11.6
Gaṅgeśa				
ca	.564	.633	.193	.440
sentence-length	11.359	85.4	26.1	59.3

In Table 4.5 I give the sentence-length distribution for the various samples of Somadeva and Gaṅgeśa. It will immediately be apparent that an enormous difference exists between Gaṅgeśa, Book 1 and the two other books. To explain this we need look no further than to the editor of the text. It is clear to anyone who glances at the text that the wider spacing of the *daṇḍas* in Books 2 and 3 signifies no change in the natural periods of the author. The facts presented in Table 4.5 are more revealing of the history of punctuation in printed Sanskrit texts and the inadequacy of editors than of the sentence-length distribution of ancient authors in Sanskrit. (I deal with this matter fully elsewhere.)

TABLE 4.5

Sentence-length in Somadeva and Gaṅgeśa, samples of 300 sentences each

(a) Somadeva

Sentence-length (words)	Sample				
	1	2	3	4	5
1—	139	154	107	121	99
6—	137	124	161	147	160
11—	22	16	24	27	30
16—	—	5	5	3	7
21—	1	—	3	1	2
26—	—	1	—	1	1
31—	1	—	—	—	—
36—	—	—	—	—	—
41—	—	—	—	—	—
46—	—	—	—	—	—
51—	—	—	—	—	—
56—61.	—	—	—	—	1

TABLE 4.5 (continued)

Sentence-length in Somadeva and Gaṅgeśa, samples of 300 sentences each

(b) Gaṅgeśa

Sentence-length (words)	Sample		
	1	2	3
1—	108	65	75
6—	103	70	84
11—	59	74	67
16—	17	33	21
21—	9	22	20
26—	1	15	16
31—	3	8	5
36—	—	5	5
41—	—	3	5
46—	—	1	1
51—	—	2	1
56—	—	—	—
61—66.	—	2	—

The results of this can be disastrous on our study of word-distributions, if we base our calculations on occurrences per sentence. This is illustrated in Table 4.6, where the distribution of *ca* in sentences as given in the text of Gaṅgeśa is contrasted with its distribution in 20-word blocks. The discrepancies of the first distribution prove extremely significant by the chi-square test. Those of the second distribution, however, are non-significant. What the first *actually* measures is the discrepancies in sentence-length.

TABLE 4.6

Distribution of *ca* in three samples of Gaṅgeśa's *Tattvacintāmaṇi*, (a) by sentences, (b) by 20-word blocks. Thus in Book 1, there are 194 sentences with no *ca*'s, 93 with one *ca*, etc.; and 44 blocks of 20 words with no *ca*'s, 50 with one *ca*, etc. Note that in (b) the samples are no longer of equal length

	(a) sentences			(b) 20-word blocks		
	Book 1	2	4	Book 1	2	4
0	194	153	176	44	64	62
1	93	102	85	50	85	77
2	11	31	29	25	38	33
3	2	9	8	7	13	8
4	—	4	2	—	3	2
5+	—	1	—	—	—	—
	300	300	300	126	203	182

$\chi^2 = 25.3$***
d.f. = 6

$\chi^2 = 1.63$
d.f. = 6

For these reasons I ignore the distribution of words in sentences in favor of 20-word blocks. One effect of this is that the samples are no longer of equal length, so that it becomes difficult to interpret them by inspection; but this in no way affects the calculations. The data for Somadeva and Gaṅgeśa may be found in Appendix Table 3.

Testing the Preliminary List

We are now in a position to examine whether the words of our list are evenly distributed within the authors comprising our control material, and to do this I use the chi-square test. This test is of great versatility and simplicity. One of its greatest advantages is that it can be applied without first determining the form of the distribution being tested, whether normal, binomial, Poisson or negative binomial, if there is a simple way of calculating the expected values which correspond to the hypothesis one wishes to test. At the same time it has its limitations, and the one which raises practical issues for us is that it tends to exaggerate the significance of variability in small numbers. I therefore follow the usual practice of considering a cell of a contingency table as below the testable level where its expectation is less than five. I then resort to pooling, adding together the cells of the table from the bottom upwards, until an expectation greater than five is achieved. Where pooling is not possible, I regard the data as being below testable level. Pooling is resorted to only to the extent that it is necessary, for the less pooling, the more detailed the distribution, and the test is thereby more exacting; the number of degrees of freedom is a guide to this. Finally, Yates' correction is applied to 2×2 contingency tables, to reduce the error due to the fact that the distribution is discrete. Significance at the 5 % level is indicated with an asterisk after the value for chi-square; at the 1 % level with two asterisks; and at the .1 % level with three.

Table 4.7 gives the result of these calculations for four authors of the control material (Kalhaṇa is separately dealt with). Seven words failed to occur at testable level in any of these authors (*iha, tāvat, yatas, yadā, yāvat, vai, ha*); a further ten occurred at testable level in only one author (*atas, atra, khalu, cet, tadā, nanu, nāma, punar, yathā, yadi*). Clearly these are not suitable for inclusion on the final list; even where, in the second group, nonsignificant results are achieved, they cannot be regarded as having

been given an adequate test. The correlatives *yatas ... yāvat* as a class are unsuitable for this reason, and, in the case of *yatra*, there is a highly significant result. Choosing the words which appear at the testable level in at least three of the authors, and have no significant results, our list of 32 is reduced to five: *eva, evam, ca, tatra* and *vā*.

Since each of the chi-square results for authors in Table 4.7 is independent of the others for the same word, we may add the results to get an over-all measure of reliability. Indeed it is highly important to do so, for a series of high but non-significant results might, when added, prove significant. This is done in the last column of Table 4.7. The five words *eva, evam, ca, tatra*, and *vā* all give non-significant totals. *Api* although giving a result significant at 5 % in Jonarāja, has a non-significant total for chi-square; yet it would be wrong to ignore that warning and include it in the short list on the basis of the total. Better to prune the doubtful words.

Generally speaking, the greater number of degrees of freedom, the more exacting the test, and the more useful the discriminator is likely to be, since it must occur at high frequencies to achieve a high number of degrees of freedom. The words of our short list have a minimum of seven degrees of freedom (the figures are: *eva*, 13; *evam*, 7; *ca*, 25; *tatra*, 7; *vā*, 11), and we would expect *evam* and *tatra* to prove the least effective discriminators, and *ca* the best. Let us see how these words performed in Kalhaṇa.

Particles in Kalhaṇa

Doubts about the usefulness of Kalhaṇa for our study arose in the course of entering the mark-sheets for the *Rājataraṅgiṇī*; I gained the distinct impression that the passages of dialogue contained rather more particles than the narrative portions. If it were true that these words were distributed at one rate in narrative and at another in dialogue, we could only hope to find homogeneity if each of our samples contained equal amounts of dialogue, which is not the case. Inspection of the distributions (Appendix Table 1) shows that Book 3 usually has the highest number of observations and longer tails to the distribution than the others, and to a lesser extent this is true of Book 4 also. As a rough guide I counted the number of *ślokas* containing dialogue and compared them with the

TABLE 4.7

Chi-square results for the distribution of words within authors

	Jon.	Mān.	Som.	Gaṅg.	Total
1. *atas*					
χ^2	—	—	—	.32	.32
d.f.	—	—	—	2	2
2. *atra*					
χ^2	—	—	—	6.68*	6.68*
d.f.	—	—	—	2	2
3. *atha*					
χ^2	5.25	—	—	1.85	7.10
d.f.	2	—	—	2	4
4. *api*					
χ^2	6.61*	3.22	4.62	3.47	17.92
d.f.	2	3	8	4	17
5. *iti*					
χ^2	7.21*	2.30	7.26	21.54***	28.31*
d.f.	2	3	4	6	15
6. *iva*					
χ^2	2.49	24.15***	13.98**	3.13	43.75***
d.f.	4	3	4	2	13
7. *iha*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
8. *eva*					
χ^2	2.96	2.59	1.37	6.19	13.11
d.f.	2	3	4	4	13
9. *evam*					
χ^2	.89	2.27	—	3.43	6.59
d.f.	2	3	—	2	7
10. *khalu*					
χ^2	—	—	20.92***	—	20.92***
d.f.	—	—	4	—	4
11. *ca*					
χ^2	2.91	10.73	7.31	1.63	22.58
d.f.	2	9	8	6	25
12. *cet*					
χ^2	—	—	—	3.81	3.81
d.f.	—	—	—	2	2
13. *tatas*					
χ^2	.43	20.20***	—	—	20.63***
d.f.	2	3	—	—	5
14. *tatra*					
χ^2	2.69	4.08	—	2.33	9.10
d.f.	2	3	—	2	7
15. *tathā*					
χ^2	2.28	5.24	—	8.26*	15.78*
d.f.	2	3	—	2	7

	Jon.	Mān.	Som.	Gaṅg.	Total
16. *tadā*					
χ^2	.06	—	—	—	0.06
d.f.	2	—	—	—	2
17. *tāvat*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
18. *tu*					
χ^2	2.93	13.58***	—	.33	16.84*
d.f.	2	3	—	2	7
19. *na*					
χ^2	8.30	1.70	30.39**	12.44	52.83***
d.f.	4	3	12	6	25
20. *nanu*					
χ^2	—	—	—	5.41	5.41
d.f.	—	—	—	2	2
21. *nāma*					
χ^2	—	—	2.00	—	2.00
d.f.	—	—	4	—	4
22. *punar*					
χ^2	—	—	.38	—	.38
d.f.	—	—	4	—	4
23. *yatas*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
24. *yatra*					
χ^2	—	—	19.45***	.17	19.62**
d.f.	—	—	4	2	6
25. *yathā*					
χ^2	—	—	—	6.56*	6.56*
d.f.	—	—	—	2	2
26. *yadā*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
27. *yadi*					
χ^2	—	—	—	.64	.64
d.f.	—	—	—	2	1
28. *yāvat*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
29. *vā*					
χ^2	2.28	1.95	5.75	.18	10.16
d.f.	2	3	4	2	11
30. *vai*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—

	Jon.	Mān.	Som.	Gaṅg.	Total
31. *ha*					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
32. *hi*					
χ^2	2.06	—	7.26	24.63***	33.95***
d.f.	2	—	4	2	8

total number of particles of all kinds in both narrative and dialogue, as shown in Table 4.8.

TABLE 4.8

Dialogue and particles in Kalhaṇa's *Rājataraṅgiṇī*

Book	1	3	4	5	6	7	8
ślokas containing dialogue	39	135	90	36	38	11	27
total no. of particles in 300 *ślokas*	322	435	384	267	319	276	373

Books 3 and 4 do indeed have the highest proportion of dialogue and the largest number of particles, while Books 5 and 7 have the lowest, although 7 ought to show less particles than 5.

When chi-square was computed for Kalhaṇa, the results showed a disappointingly high proportion of significant results, eight out of sixteen, and I decided to remove the dialogue portions and re-calculate for the remainder. 'Dialogue' is rather widely defined, to be on the safe side. All direct speech is included under that term, whether spoken to another or not, and thoughts in the form of direct speech (such as are, or could be concluded with *iti*) were also put in that category. Quotations from previous writers, however, were allowed as narrative, unless in direct speech, and are anyway so few as to have little effect. If a given *śloka* contained any dialogue in this sense, however little, it was excised.

In computing chi-square I was faced with the problem that some of the particles fall below testable level when dialogue is removed from the samples. The calculations were made in spite of this, but it must be remembered that such results are rather unreliable and tend to exaggerate the significance of divergence from the expectation. The results may be found in Table 4.9, together with the totals for the other four authors, and for the five together.

We do not expect an improvement in every word of our list by the removal of dialogue, since our previous results show some of the words to be unstable, and others are insufficiently tested. Comparison of columns (a) and (b) of Table 4.9 show the improvements are more or less evenly matched by disimprovements. Taking the five words which previous testing suggested should have regular distributions, two show a marginal increase in the value for chi-square when dialogue is removed (*eva*, *evam*), one shows a small decrease (*ca*), and the remaining two show a substantial decrease (*tatra*, *vā*). *Tatra* and *vā*, which had significant results, become non-significant when dialogue is removed.

Excursus: *A Test of Authorship for Narrative Verse*

This discovery of the upsetting effect of dialogue in Kalhaṇa is a disappointing one. Simple excision of dialogue leaves a mutilated text, and it is doubtful whether it would be proper to adopt this as a standard procedure. Moreover in works with large amounts of dialogue the tests would become unworkable, as the discriminators would occur at only very low levels. This would scarcely be of importance if only a handful of narrative works in *ślokas* existed. But I need only cite the Epics and Purāṇas to show that such works are many and important in Sanskrit literature. The purpose of this excursus is to show that other methods of examining narrative works in *ślokas*, little affected by the presence of dialogue, exist.

It is well known that different contemporary authors, and authors of different ages, often differ considerably in their choice of metre in the second *pāda* of the *śloka*. The preferred choice is everywhere the *pathyā* form ($\cup--\cup$), and the four *vipulās* are the variants mainly resorted to ($\cup\cup\cup\cup$; $-\cup\cup\cup$; $-,--\cup$; $-\cup-\cup$). The fourth *vipulā* almost entirely disappears in the classical authors while it is well-represented in the older strata of the *Mahābhārata*. There is a tendency too for the proportion of *vipulās* to *pathyās* to diminish in the course of time, but there are exceptions to this.[1]

---

[1] The following data on *ślokas* in the *Sabhāparvan* (from the unpublished paper of von Nooten, cited above, p. 81, fn. 1) may be compared with the classical authors of Table 4.10.

pathyā		832 *ślokas per* 1000
vipulā	I	67
	II	33
	III	42
	IV	25
minor Ionic		1

TABLE 4.9

Chi-square results for Kalhaṇa, (a) with and (b) without dialogue, with totals for Jonarāja, *Mānasollāsa*, Somadeva and Gaṅgeśa (c). Totals of columns (b) and (c) are found in (d). Only words occurring at testable level in (a)are given. Figures in column (b)enclosed in brackets indicate occurrences below the proper testable level.

	(a)	(b)	(c)	(d)
3. *atha*				
χ^2	42.58***	62.47***	7.10	69.57***
d.f.	6	6	4	10
4. *api*				
χ^2	32.63***	26.39***	17.92	44.31**
d.f.	12	6	7	23
5. *iti*				
χ^2	31.64***	26.99***	28.32*	55.31***
d.f.	6	6	15	21
6. *iva*				
χ^2	16.52*	20.19**	43.75***	63.94***
d.f.	6	6	13	19
8. *eva*				
χ^2	10.12	10.89	13.11	24.00
d.f.	6	6	13	19
9. *evam*				
χ^2	1.62	(1.81)	6.59	8.40
d.f.	6	6	7	13
11. *ca*				
χ^2	7.36	5.80	22.59	28.39
d.f.	6	6	25	31
13. *tatas*				
χ^2	6.82	9.87	20.62***	30.49**
d.f.	6	6	5	11
14. *tatra*				
χ^2	16.42*	7.82	9.10	16.92
d.f.	6	6	7	13
15. *tathā*				
χ^2	10.58	(11.82)	15.78*	27.60*
d.f.	6	6	7	13
16. *tadā*				
χ^2	13.62*	(12.57*)	.061	12.63
d.f.	6	6	2	8
18. *tu*				
χ^2	5.66	7.11	16.84*	23.95*
d.f.	6	6	7	13

The classical authors shun the fourth *vipulā*, and of them only Māgha employs *vipulās* (other than the fourth) about as frequently as the *Sabhāparvan*.

	(a)	(b)	(c)	(d)
19. *na*				
χ^2	35.25***	30.43***	52.84***	83.27***
d.f.	6	6	25	31
22. *punar*				
χ^2	9.97	(10.73)	.380	11.11
d.f.	6	6	4	10
25. *yathā*				
χ^2	4.07	(4.47)	6.56*	11.03
d.f.	6	6	2	8
29. *vā*				
χ^2	17.49**	(8.18)	10.16	18.24
d.f.	6	6	11	17

There are more exceptions to the preference for the third over the second *vipulā* attributed to classical authors. The chi-square test is a means of judging the significance of divergence between distributions of *pathyās* and *vipulās* tabulated for different texts, and by taking account of the over-all shape of the distribution it allows us to avoid separate calculations for the *vipulā* ratios (all *vipulās*: *pathyās*) and *vipulā* preferences (e.g. second to third *vipulā*) with which the literature on the subject is laced.

Of the five classical poets, Kālidāsa, Bhāravi, Kumāradāsa, Māgha, and Bilhaṇa, suppose their works had come to us anonymmously. Would we find no significant divergence between the *śloka* types of the two works of Kālidāsa, *Raghuvaṃśa* and *Kumārasaṃbhava*? And, if so, would we be able to distinguish the five authors from each other? Table 4.10 shows the answer is yes—almost.

The result for the two Kālidāsa works admittedly borders the 5 % level of significance, perhaps attributable to changes in style with the passage of time. Between the five authors the *śloka* proves itself an efficient discriminator, except that it fails to distinguish Kālidāsa and Bhāravi from Bilhaṇa.

These failures are instructive. In the absense of significance testing one would be tempted to say that Kālidāsa prefers the third *vipulā* to the second, and Bilhaṇa the reverse; or that Bilhaṇa prefers the first to the third while Kālidāsa treats them alike.

TABEL 4.10

The *śloka* as discriminator. The fouth *vipulā*, occurring once only, was
dropped in testing Where one of the *vipulās* has occurrences below the
testable level, all three *vipulās* were pooled and contrasted with the *pathyā*
verses.

	Kālidāsa			Bhāravi	Kumāradāsa	Māgha	Bilhaṇa
	Raghuv.	*Kumāras.*	Total				
pathyā	1019	276	1295	225	414	339	391
vipulā I	32	14	46	15	8	47	20
II	18	9	27	8	1	44	10
III	27	14	41	2	1	34	7
IV	0	1	1	0	0	0	0

	χ^2	d.f.
Kālidāsa: *Raghuvaṃśa* and *Kumārasambhava*	7.72	3
Kālidāsa and Bhāravi	9.71*	3
Kālidāsa and Kumāradāsa	17.5***	3
Kālidāsa and Māgha	117.1***	3
Kālidāsa and Bilhaṇa	4.15	3
Bhāravi and Kumāradāsa	17.1***	1
Bhāravi and Māgha	31.6***	3
Bhāravi and Bilhaṇa	.205	1
Kumāradāsa and Māgha	105.7***	3
Kumāradāsa and Bilhaṇa	15.0***	1
Māgha and Bilhaṇa	52.4***	3

Source: Keith, p. 108 (Kālidāsa); pp. 115-6 (Bhāravi's *Kirātārjunīya*);
p. 123 (Kumāradāsa's *Jānakīharaṇa*); p. 131 (Māgha's *Śiśupālavadha*);
p. 157 (Bilhaṇa's *Vikramāṅkadevacarita*).

Neither conclusion is warranted by the available data: we can only
say that they do not differ significantly from each other. Bhāravi
and Bilhaṇa have so few *vipulās* we had to pool them, forming a
2×2 table, testing, in effect, the *vipulā*-ratio, with one degree of
freedom, a procedure which was adequate to distinguish two other
pairs of authors, but not this.

The distribution of *pathyā* and *vipilā* is clearly useful in author-
ship discrimination, provided account is taken of upsetting factors,
and the distributions are subjected to significance testing.

Discriminating Powers of Particles

We return now to the behaviour of the five particles of our short
list in the control material. To examine the ability of these particles

to distinguish different authors, we first total the distributions within each author, so that within-author variability is eliminated from our test for between-author variability. These totals may be found in Appendix Table 4.

Taking the three metrical works, the result of comparing them in pairs is set out in Table 4.11.

TABLE 4.11

Discriminating power of particles in three metrical works

	Kal. & Jon.	Kal. & Mān.	Jon. & Mān.
eva			
χ^2	1.98	1.03	3.11
d.f.	1	2	1
evam			
χ^2	.01	7.81***	5.95*
d.f.	1	1	1
ca			
χ^2	2.90	121.95***	103.29***
d.f.	2	3	3
tatra			
χ^2	.10	6.15*	3.14
d.f.	1	1	1
vā			
χ^2	1.43	31.47**	10.60**
d.f.	1	2	2

Our tests easily distinguish the *Mānasollāsa* from Kalhaṇa and Jonarāja. It is, of course, a very different work from the other two, and the tests fail to distinguish the author of the *Rājataraṅgiṇī* from its continuator. Evidently Jonarāja has succeeded in emulating his predecessor's style in this respect, though it must he remembered that dialogue has been removed from Kalhaṇa before computing chi-square. Still, it is preferable that our tests should sometimes fail to distinguish different authors than that they should mislead us into finding differences in authorship where they do not really exist, and such is the case with the words of our short list.

Turning to the two prose works, all except *vā* indicate a highly significant difference in distribution. (Table 4.12). The case of *evam* is instructive, for it does not occur at all in Somadeva, so that we may reject the ascription to Somadeva of any work

8

containing a high proportion of that word. [1] Gaṅgeśa has altogether 55 occurrences in the material used.

TABLE 4.12

Particles in Somadeva and Gaṅgeśa

	χ^2	d.f.
eva	115.42***	3
evam	47.25***	1
ca	95.63***	3
tatra	57.65***	2
vā	1.35	2

Taking metrical and prose works together, *ca* appears to be the best discriminator, followed by *evam, tatra, vā,* and *eva.* This may not hold in other cases, however, since we cannot predict in what respect two unknown authors will show the greatest differences.

Testing the Arthaśāstra

In testing the homogeneity of the *Arthaśāstra* by means of the five discriminators derived from our examination of the control material we will wish to treat the books (*adhikaraṇas*) as if they were independent treatises in the first instance. Thus, each sample shall consist of not more than one book. Before so doing, however, we will have to remove those portions of the text which, according to the theory defined in Chapter 3, are the contribution of the organizer who gave the *Arthaśāstra* its final form, namely the terminal verses, the 'table of contents' (1.1) and the *Tantrayukti* (Book 15), treating 1.2 ff. for purposes of investigation as if it were an independent composition. Unfortunately neither these verses, because they are verses, nor the prose portions, because they are too short and peculiar in nature, may legitimately be compared statistically with the prose residue, so that we shall not be able to determine whether the organizer authored any more of the *Arthaśāstra* than the minimum we have attributed to him.

These considerations give us 14 samples, each comprising one of the 14 remaining books. But three of the books, the second, third

---

[1] Since writing the above I have confirmed it in Somadeva's long *campū* entitled *Yaśastilaka.* In an unavoidably hurried inspection of the first 350 pages of the printed text, I found only a dozen and a half occurrences of *evam,* five of which were in dialogue or verse, so not strictly comparable to the expository prose of the *Nītivākyāmṛta.*

and seventh, are long enough to permit them to be divided up into
two or more samples, and to test for homogeneity within books
before comparing one book with another. It is convenient to divide
each of these books into samples containing an equal number of
sentences, which make them of somewhat different length when
measured in terms of 20-word blocks, with the wastage of a few
words at the end of samples which is unavoidable in following this
method. Book 2 is thus divided into four samples, and Books 3 and
7 into two each, samples in every case amounting to 295 sentences
or more.

The distributions for the five words may be found in Appendix
Tables 5 (dealing with the three long books) and 6 (all books).

Books 2, 3 and 7

The results of testing within Books 2, 3 and 7 are set out in
Table 4.13.

TABLE 4.13

Chi-square results within three books of the *Arthaśāstra*

	Book 2	Book 3	Book 7
eva			
χ^2	3.98	.00	.12
d.f.	3	1	1
evam			
χ^2	—	—	.00
d.f.	—	—	1
ca			
χ^2	8.67	3.49	3.26
d.f.	9	3	2
tatra			
χ^2	—	—	—
d.f.	—	—	—
vā			
χ^2	8.91	.33	15.57**
d.f.	6	3	4

Evam and *tatra* are of little use because of their low rate of
occurrence. Books 2 and 3 give us no reason to suppose that they
are not homogeneous within themselves. The only significant result
is that for *vā* between the two halves of Books 7, which shows a
divergence which would arise through sampling of a randomly
distributed characteristic in somewhat less than one case in two

hundred. This is rather puzzling since the other discriminators are non-significant, and if the variability of *vā* reflects a change in authorship, we should expect some of those other discriminators to show significant divergences too; nor does the content of Book 7 arouse suspicions of contamination. The actual distributions are as under.

TABLE 4.14

Distribution of vā in 20-word blocks in *Arthaśāstra*, Book 7

vā (occurrences)	Book 7a	Book 7b
0	36	52
1	44	35
2	28	18
3	22	6
4	4	9
5	1	—

In computing chi-square the cells for no occurrences per 20-word block contribute about 5, and those for three occurrences about 7 toward the total of 15.57, reflecting the fewer blocks with no occurrences and the greater number with three in the first half of the book. *Vā* occurs at the very high rate of 7% in the first sample, but drops to some 5 % in the second; yet it remains the commonest word in the book, exceeding its rates in Books 2 and 3 (3 % and 4 %). Typical of the style of Book 7 is the construction *Yadi vā paśyet* ... *vā* ... *vā* ... or cognate expressions in which a series of alternative sets of circumstances are described, followed by a recommended course of action in the optative, which leads to clusters of *vā*'s in a single *sūtra*. An extreme case is 7.1.32, in which 12 *vā*'s occur in a single sentence. That the use of this construction tends to fall off, or becomes less extravagant of *vā*'s as the book progresses, may have nothing to do with authorship. I incline to regard this as one of those 'outrageous events' which the statistician is bound to meet from time to time, and to place more confidence in the evident unity of the book itself and the homogeneous distributions of the other discriminators. "A crow lights under a palm tree; a palm fruit falls." Not all contingencies are causally related, nor all unusual events significant.

Turning now to between-book variability, we lump the figures within books to eliminate within-book variability and test for significance between pairs. There are no grounds on which we can

decide whether the 'true' distribution of *vā* for the author of Book 7 is better approximated by the first or the second half, but once it is agreed that we have here to do with only a single author, the true distribution ought to fall between the two extremes and lumping should give us an improved estimate of the population distribution. (Consult Appendix Table 2 for the figures.)

Chi-square results are given in the following table.

TABLE 4.15

Chi-square results between three books of the *Arthaśāstra*, by pairs

Books	2 & 3	2 & 7	3 & 7
eva			
χ^2	10.43**	1.53	2.73
d.f.	1	1	1
evam			
χ^2	—	2.60	4.85
d.f.	—	1	1
ca			
χ^2	28.65***	74.17***	9.60*
d.f.	4	4	3
tatra			
χ^2	.59	.00	.25
d.f.	1	1	1
vā			
χ^2	13.26**	46.93**	12.41**
d.f.	3	4	4

The variability between books is of an altogether different order from within-book variability. In spite of the poor discriminating ability of three of the words (*eva, evam, tatra*), the overall picture is one of great divergence between the three books. Even that between Books 3 and 7, which may, at first, appear modest, is very considerable when one considers how unlikely it is that several events, themselves moderately unlikely, should coincide. If it were permissible to add the chi-square results for the different words (as it is not, since the words are not quite independent of each other), the probability would be of the order of one out of a thousand cases. This may be a higher probability than that expressed in the *mahārṇava-yuga-cchidra-kūrma-grīvārpaṇa-nyāya*, the chance that a turtle (which is said to surface once in a hundred years) would put its head through a yoke floating about on the ocean, but it nevertheless represents a degree

of certainty enormously greater than that with which the historian of ancient India usually contents himself.

I conclude from this that three hands are discernible in the *Arthaśāstra*: one of them responsible for Book 2, dealing with the internal administration of the kingdom, one responsible for Book 3, a kind of *dharmasmṛti* dealing with law, and the third responsible for Book 7, concerning the struggle for power between states. That the divergences noted are not due to subject-matter has been demonstrated.

The Remaining Books

What of the remaining books? I give in Table 4.16 the chi-square results when each of Books 2, 3 and 7 are compared with each of the others. One of the problems besetting the interpretation of these results is that of sample size, for it is likely that while words may be evenly distributed in large samples, this is not true in detail, so that the author's characteristic pattern cannot emerge when the sample is small. A sample of 2000 words or 100 20-word blocks should surely be sufficient; less than 1000 may be too few. Apart from the three long books, only Books 1, 4 and 9 contain more than 2000 words, with Book 5 just under this figure at 1860 words. Books 6 and 10 with 420 and 440 words are on the other hand probably too short for us to reach any firm conclusion about their affiliation with other books, and Book 14, with just over a thousand, is perhaps a border-line case.

Looking first at Book 2, the chi-square results offer grave objections to linking it with any other book except for Book 8 (where the results for *vā* borders on significance at 5 %) and Book 1, where the divergences are non-significant except for *evam*, with a probability of perhaps three cases in a hundred. Both Books 1 and 8 yield highly significant results when compared with Books 3 and 7, and, on the principle that it is preferable not to multiply sources beyond need, we could initially consider Books 1, 2 and 8 as forming the work of a single author.

Turning now to the affiliations of Book 3, it appears that Book 4 belongs to it, since both Books 2 and 7 reject it. Book 5 shows a slightly significant divergence in respect of *vā* when compared with Book 3, and the same for *eva* and *ca*, when compared with Book 7, though it clearly cannot be grouped with Book 2. Books 6 and 11 are too short to reach any conclusion, also perhaps Book 14. Of the

rest, objections to grouping Book 3 with any other appear in every case but Book 10.

As for Book 7, it stands apart from Books 1, 2, 3, 4 and 5. The result for the short Book 6 must be indecisive. Book 8, strangely, is rejected. Book 9 probably belongs to it, and Book 10 may do so, in spite of a slightly significant result for *vā*.

Books 12 and 13 are rejected by each of Books 2, 3 and 7, and may well form a group of their own, representing a fourth hand in the *Arthaśāstra*.

To summarize the results: The separate authorship of Books 2, 3 and 7 is well established. When it comes to grouping the remaining books around those three, the interpretation of the results becomes less obvious. It is conceivable that Books 1 and 2 belong together, both from the statistical results as well as from the fact of their contiguity and the similarity of subject matter. To add Book 8 to that group, however, would make less sense since it is neither contiguous nor is it obvious that its subject (vices or calamities) fits in well with the first two (ministers and overseers). It is stylistically unique in the extent to which it employs the polemical technique, which is rare in Book 1 and almost absent from Book 2. Books 3 and 4 (law and crime) clearly form the core of a second group, to which Book 5 ('secret conduct') might logically be added. Book 6 would perhaps be put in a third group with Book 7, to which it serves as a preface, but could also for the same reason be a later composition added by the organizer. The third group, then, whose general subject is interstate relations, would consist of Books 7, 9 and 10. Books 12 and 13 form a fourth group of miscellaneous subjects under the heading of interstate relations, to which one would be inclined to add Books 11 and 14.

TABLE 4.16

Chi-square results comparing each of *Arthaśāstra* Books 2, 3 and 7 with the remaining Books

(a) Book 2

Book	1	4	5	6	8	9
eva						
χ^2	.00	5.05*	16.02***	—	—	.13
d.f.	1	1	1	—	—	1
evam						
χ^2	4.37*	—	—	—	—	—
d.f.	1	—	—	—	—	—

TABLE 4.16 (continued)

Book	1	4	5	6	8	9
ca						
χ^2	4.80	24.02***	15.41**	9.70**	2.20	37.12***
d.f.	4	3	3	3	3	3
tatra						
χ^2	.00	7.90	—	—	.87	.46
d.f.	1	1	—	—	1	1
vā						
χ^2	6.07	24.42***	37.65***	.00	5.63	27.86***
d.f.	3	3	3	1	2	3

Book	10	11	12	13	14
eva					
χ^2	—	—	—	1.34	—
d.f.	—	—	—	1	—
evam					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
ca					
χ^2	14.68**	12.67**	19.75***	24.77***	32.16***
d.f.	3	4	3	3	3
tatra					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
vā					
χ^2	1.80	13.43**	66.18***	43.24***	2.41
d.f.	2	2	3	3	2

(b) Book 3

Book	1	4	5	6	8	9
eva						
χ^2	5.74*	.13	1.17	—	2.93	3.02
d.f.	1	1	1	—	1	1
evam						
χ^2	6.78**	—	—	—	—	—
d.f.	1	—	—	—	—	—
ca						
χ^2	11.32**	2.83	4.19	1.62	5.11	5.43
d.f.	3	3	3	2	3	3
tatra						
χ^2	.41	—	—	—	—	1.87
d.f.	1	—	—	—	—	1
vā						
χ^2	24.97***	5.26	11.13*	1.33	16.57***	10.90*
d.f.	3	3	3	1	2	3

TABLE 4.16 (contiuned)

Book	10	11	12	13	14
eva					
χ^2	1.03	—	3.40	.53	1.34
d.f.	1	—	1	1	1
evam					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
ca					
χ^2	.44	1.63	1.30	13.21**	7.99*
d.f.	2	2	2	3	2
tatra					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—
vā					
χ^2	1.56	7.82*	32.75***	18.77***	.29
d.f.	2	2	3	3	2

(c) Book 7

Book	1	4	5	6	8	9
eva						
χ^2	.85	.82	5.87*	—	.35	.11
d.f.	1	1	1	—	1	1
evam						
χ^2	.16	1.99	1.32	—	—	.60
d.f.	1	1	1	—	—	1
ca						
χ^2	32.82***	12.68**	6.07*	.01	16.04***	5.86
d.f.	3	2	2	1	2	3
tatra						
χ^2	.00	—	—	—	—	.58
d.f.	1	—	—	—	—	1
vā						
χ^2	45.15***	1.25	1.23	5.19*	32.33***	4.37
d.f.	4	4	3	2	3	4

Book	10	11	12	13	14
eva					
χ^2	.00	—	.63	.02	—
d.f.	1	—	1	1	—
evam					
χ^2	—	—	—	—	—
d.f.	—	—	—	—	—

TABLE 4.16 (continued)

	Book	10	11	12	13	14
ca						
χ^2		3.36	.00	.21	14.68**	4.91
d.f.		2	1	2	3	2
tatra						
χ^2		—	—	—	—	—
d.f.		—	—	—	—	—
vā						
χ^2		8.63*	4.24	14.90**	6.62	5.25
d.f.		3	2	4	3	3

CHAPTER FIVE

SENTENCE-LENGTH AND COMPOUND-LENGTH

Sentence-length

One feels that length of sentence characterizes the style of a writer. This author prefers the immediacy of short, staccato sentences; that author, the polished and languid style of long periods with frequent appositions, subordinate clauses and parenthetical phrases. Sentence-length is, moreover, easily measured (or so it seems, at first glance), and the studies of Yule, Wake and Morton [1] in Latin, English and Greek provide reason to believe that it could be a useful test of authorship in Sanskrit as well. I decided to investigate the matter.

Sentence-length distributions characteristically form a unimodal curve, positively skew, often with a long thin tail. Their shape can be summarized (following Yule) by calculating the first quartile (Q_1), a measure of short sentences; the median, a measure of the central tendency; the third quartile (Q_3), a measure of the longer sentences; and the ninth decile (D_9), a measure of the longest sentences. (Yule also gives the interquartile distance, Q_1-Q_3, as a measure of the central spread.) I give these quantiles for sentence-length distributions of Somadeva in Table 5.1.

TABLE 5.1

Quantiles of the sentence-length distributions in Somadeva (in words)

Sample	1	2	3	4	5
Q_1	3.20	2.93	4.00	3.60	4.28
Median	5.91	5.37	6.93	6.82	7.09
Q_3	8.64	8.36	8.66	9.03	9.44
D_9	10.48	10.17	10.91	10.87	12.33

Since the method of calculating these quantiles is only approximate, and that of calculating their standard errors is even more so, they do not form a very satisfactory basis for significance testing. Yet they serve to illustrate the considerable divergence

---

[1] Cited above, ch. 3.

which exists between Sample 2 at one extreme and Sample 5 at the other, in every part of the distributions.

Grouped sentence-length distributions for Somadeva (as well as Gaṅgeśa) have been given in Table 4.5, above. Calculating for chi-square from this table yields a highly significant result, well beyond the .1 % level ($\chi^2 = 35.09$ at 12 d.f.).

This result is confirmed by comparison of means and variances. (These have been calculated from the ungrouped data.)

TABLE 5.2

Means and variances for sentence-length distributions in Somadeva.
n = number of sentences

Sample	1	2	3	4	5
n	300	300	300	300	300
mean	6.17	6.14	7.10	6.74	7.29
variance	11.22	9.93	10.59	10.04	19.24

Standard error of the difference in means ($\sigma_{\text{diff.}}$) is given by:

$$\sigma_{\text{diff.}} = \sqrt{\frac{S_i^2}{n_i} + \frac{S_j^2}{n_j}}$$

where S^2 is the variance, n the size of sample, and the subscripts i, j denote the two different samples. Calculating for the two extremes, Samples 2 and 5, we find the standard error of the difference is .312, with a difference in means of 1.15, or 3.69 standard errors. Referring this to tables of the areas of the normal curve, we find a probability of slightly more than .0001 or one case in 10,000 of so great a difference arising through sampling variation. Computing the variance ratio, F, where

$$F = \frac{\text{greater variance estimate}}{\text{lesser variance estimate}}$$

we achieve a highly significant value at 1.95 (d.f. = 299, 299). By all the tests I conclude that sentence-length distributions in Somadeva can by no means be regarded as homogeneous.

Turning to Gaṅgeśa, the quantiles are given in Table 5.3.

As I have previously remarked, theie is a large difference between the distribution for Book 1, and those for Books 2 and 4. Chi-square for all three books is highly significant at 58.23 with 12 degrees of freedom.

TABLE 5.3

Quantiles of the sentence-length distributions in Gaṅgeśa

Book	1	2	4
Q₁	3.97	6.21	5.50
Median	7.54	11.53	9.96
Q₃	11.69	17.92	15.43
D₉	15.50	27.50	26.44

Means and variances are given in Table 5.4.

TABLE 5.4

Means and variances for sentence-length distributions in Gaṅgeśa

Book	1	2	4
n	300	300	300
mean	8.52	13.67	12.42
variance	33.64	110.04	93.70

For Books 1 and 2 the means lie 3.09 standard errors apart, a highly significant divergence; and the F-test shows a highly significant divergence in the variances of the two books ($F = 3.27$, d.f. $= 299, 299$).

Agreement between Books 2 and 4, on the other hand, is fairly good. The chi-square result for the grouped sentence-length distributions of Table 4.5 is 5.89 at 8 degrees of freedom. The means for the two books are 1.5 standard errors distant which, at about the 7 % level, is not too bad. The variance ratio is also non-significant ($F = 1.17$).

These results should serve as a warning against too facile an acceptance of sentence-length as a test of authorship in ancient texts. For it would be absurd to conclude that Samples 2 and 5 of Somadeva, for instance, have different authors, or that the author of Gaṅgeśa, Book 1 is different from the author of Books 2 and 4.

To determine the lengths of sentences I have simply counted the number of words between *daṇḍas*. Now the use of the *daṇḍa* in verse was regularized before its use in prose, if indeed it can ever be said to have been regularized in prose. The Girnar recension of the Aśokan edicts employs *daṇḍas* very haphazardly, to separate phrases, but not throughout; in the Gupta inscriptions *daṇḍas* are

fully established in verse and common but not obligatory in prose.[1]
A glance through Sircar's *Select Inscriptions* suffices to show that
a modern editor's view of where the *daṇḍas* belong often conflicts
with that of the person—whether the *praśastikāra* or the engraver—
responsible for the *daṇḍas* in epigraphs. Moreover, the judgement
of two different editors may diverge to a considerable extent:
Kangle's text of the *Arthaśāstra*, for example, contains about 22 %
fewer *daṇḍas* than does the Jolly-Schmidt edition.[2] Even the work
of one editor may show inconsistencies from one end of a text to
the other, and it is to this, coupled with the inconsistencies in-
troduced by copyists and allowed to stand, that the divergences
in sentence-length distributions noted in Somadeva and Gaṅgeśa
are most probably to be attributed. If one consults the printed text
of Gaṅgeśa, for instance, one will find, in Book 1 where a hypothetical
construction beginning with *cet* is rebutted with *na*, that *na* is more
often than not regarded as a one-word sentence with *daṇḍas* either
side; whereas in Book 2 and the later books it is often treated as
a phrase and enclosed in commas. Thus the *daṇḍas* in this edition
of Gaṅgeśa do not accurately reflect the natural periods of the prose;
rather, they mask it.

The *daṇḍa* was the only mark of punctuation available to ancient
Indian writers and so was called to serve a variety of purposes
besides ending sentences. In the printed texts which have appeared
in the last two centuries, a few roman punctuation marks have been
admitted with the wholly praiseworthy intent of making them
easier to read. The unfortunate result for our type of study is that
practices have not become standard, either with regard to the
number of permitted marks, or their permitted functions. If the
daṇḍa were confined to the functions of the period and were intelli-
gently inserted by editors, the sentence-length test would be much
easier to apply.

This does not wholly eliminate the problem, however, for even in
Classical texts which have been the subject of critical editorial
attention for many generations, the practices of different editors
often show considerable divergence. In modern texts where we can

---

[1] See Georg Bühler, *Indische Palaeographie*, trans. Fleet, in *IA 33* 1904,
Appendix.

[2] Kangle, Part 3, p. 21: about 5370 '*sūtras*' in his text, 6880 in Jolly-
Schmidt, including verses, where the position of the *daṇḍas* is fixed by usage,
so that the difference in the prose is even greater than calculated.

be confident that the punctuation is the work of the author and not of copyists or editors, we have personal idiosyncracy to cope with; only the foolhardy or the mad would attempt a study of sentence-length distributions in *Tristram Shandy*, to cite the most extreme example, probably, the language affords. In all studies of sentence-length in any language, then, what constitutes a sentence must be given careful thought; and in many, perhaps most, editorial decisions will have to be made while making the counts or preparing the text for computer. This is unfortunate since it requires greater attention and time, and subjects the outcome of a sentence-length study to the skill and honesty of the scholar doing the counting, but it cannot be avoided.

I do not pursue sentence-length further, but turn now to compound-length.

Compound-length

It is a matter of common knowledge among Indologists that Sanskrit authors differ in the extent to which they use nominal compounds, and especially in the lengths of their compounds. Some authors (and some genres of literature) will favor the crispness and directness of a style which uses only a few short, common compounds; others, preferring the ornate and convoluted, will build great compounds as easily as a hot summer's day will pile up cumulous clouds. Sanskrit permits the writer enormous scope for compounding, perhaps more than any other language. And it is only reasonable to presume that if compounding can be measured, it may form a basis on which personal styles may be statistically distinguished.

In compiling tables of compound-length distributions I have counted the number of separate words or 'members' in each nominal compound; thus each compound has two or more members. I have not distinguished *nityasamāsas* such as *artha-śāstra* from those made up for the occasion and never used again; *arthaśāstra* is entered as a two-member compound along with the rest, though proper names are everywhere treated as simple words. I have analyzed each compound into as many component members as it can be made to yield regarding, for example, *itihāsa* as a three-member compound consisting of the words *iti + ha + āsa* after the usual etymology, excepting only *a*-privative and the prefixes of verbal derivatives, and resolving compounds within compounds to their component

parts. Compounds were not further classified by type, such as *bahuvrīhi*, etc. If this procedure seems to ride roughshod over many nice grammatical distinctions, it appeared the only practical course, at least for a first attempt such as this. To follow any other would be to risk having the business of counting get stuck in a morass of indecision.

Compound-length distributions for the five samples from Somadeva and the three from Gaṅgeśa are given in Table 5.5.

<div align="center">

TABLE 5.5

Compound-length distributions in Somadava and Gaṅgeśa

(a) Somadeva

</div>

Members	Sample	1	2	3	4	5
2		307	326	355	313	435
3		100	76	102	84	97
4		28	30	32	18	26
5		12	12	7	9	13
6		4	4	3	2	7
7		3	4	5	3	8
8		2	3	1	1	—
9		1	1	1	—	—
10		1	2	1	—	1
11		—	—	1	—	1
...						
14		1	—	—	—	—
...						
42		—	1	—	—	—
Total		459	459	508	430	588

<div align="center">

(b) Gaṅgeśa

</div>

Members	Book 1	2	4
2	431	644	602
3	185	323	271
4	70	111	104
5	15	48	46
6	11	29	18
7	6	14	15
8	—	5	4
9	1	6	2
10	—	3	3
11	—	2	1
12	—	1	—
...			
16	—	—	1
Total	719	1186	1067

Agreement among the five samples of Somadeva as measured by chi-square is very good ($\chi^2 = 18.00$, d.f. $= 16$); that within Gaṅgeśa is not so good, just reaching the 5 % significance level ($\chi^2 = 18.75$, d.f. $= 10$). The improvement over the sentence-length distributions, in any case, is enormous, and we have reason to be encouraged.

Comparison of means and variances, on the other hand, is distinctly discouraging.

TABLE 5.6

Means and variances for compound-length distributions in
Somadeva and Gaṅgeśa

(a) Somadeva

	n	mean	variance
Sample 1	459	2.57	1.391
2	459	2.63	4.730
3	508	2.50	1.120
4	430	2.41	.716
5	588	2.46	1.102

(b) Gaṅgeśa

	n	mean	variance
Book 1	719	2.63	.963
2	1086	2.74	1.798
4	1067	2.80	1.686

In Somadeva the extremes for both means and variances are represented by Samples 2 and 4. The means ot these two samples lie 2.02 standard errors apart with a probability of about 4.5 % (for two tails). The variance ratio is highly significant at 6.61 (458, 429 d.f.). For Gaṅgeśa the means of the samples from Books 1 and 4 are 3.12 standard errors distant, with a probability of about two cases in a thousand. The variance ratio for the two extremes, Books 1 and 2, is again significant, though not so large as that for Somadeva (F $= 1.87$, d.f. $= 1085$, 718).

The reason for the differing verdicts of the chi-square test and comparison of means and variances is not far to seek. The compound-length distributions from time to time show outliers at a considerable distance from the body of the distribution, or, in other words, the occasional very long compound makes an appearance. They are in almost every case *dvandvas*, and one way of eliminating this

9

effect would be simply to exclude all compounds of this type. These outliers increase the means only slightly, but the variances a great deal. In the second sample from Somadeva, for instance, a single compound of 42 members contributes about 3.4 to the total variance of 4.7. The necessity for pooling where the expectation falls below 5 in chi-square testing damps down or even eliminates the distorting effect of these outliers. In computing chi-square for Somadeva, compounds of six members or more were lumped together, in Gaṅgeśa compounds of seven members or more. It is usually judged that the need to pool and thus foreshorten the tails of distributions, making chi-square a less sensitive test, is a disadvantage; in this case, it is an improvement over other tests.

Clearly compound-length cannot be regarded as a safe discriminator without further investigation into its nature and without more testing in control material. I pass to a consideration of compound-length in the *Arthaśāstra* with the understanding that it is not to be taken as sure or settled, and must be evaluated in conjunction with the results of other kinds of tests.

The distributions may be found in Appendix Table 7.

Taking the three long books first and computing chi-square within and between books we arrive at the results shown in the following table:

TABLE 5.7

Chi-square results for compound-length distributions within and between Books 2, 3 and 7 of the *Arthaśāstra*

		χ^2	d.f.
Book	2	33.41*	21
	3	3.06	5
	7	8.63	4
	2 and 3	24.87**	8
	2 and 7	32.81***	6
	3 and 7	9.14	6

This agrees quite well with the results for word distributions,[1] except that the four samples of Book 2 give a result just at the 5 % level, occasioned chiefly by a thick tail in 2a, and comparison of Books 3 and 7 yields a non-significant result. Book 2 in any case is very different from Books 3 and 7, supporting my conclusion of difference in authorship.

[1] See above, Tables 4.13 and 4.14.

The results comparing the long books singly with the remaining ones are given in Table 5.8. How do these results affect my conclusions as to groups of books within the *Arthaśāstra*, arrived at on the basis of word distributions?[1] In the first place the possible association of Books 1 and 2 looks less likely in view of a significant result for compound-length, though I note that again the tail of the distribution is the seat of the trouble, so to speak. The same cannot be said for the significant difference in compound-length between Books 3 and 4, on other grounds the most hopeful of combinations, though 3 and 5 may be considered homogeneous. There is no change in the conclusions regarding Book 7, and in particular its association with Book 9 is the most thoroughly tested in the *Arthaśāstra*.

Compound-length may prove to be a useful test of authorship in Sanskrit, but as I say, it needs more study.

TABLE 5.8

Chi-square results for compound-length distributions, comparing each of *Arthaśāstra* Books 2, 3 and 7 with the remaining books

(a) Book 2

Bk.	1	4	5	6	8	9
χ^2	20.02**	22.90**	6.92	2.81	16.09*	25.14***
d.f.	7	7	6	3	6	6

Bk.	10	11	12	13	14
χ^2	20.16**	2.11	9.60*	15.23**	32.94***
d.f.	5	3	4	5	5

(b) Book 3

Bk.	1	4	5	6	8	9
χ^2	13.67*	19.50**	6.87	6.09	8.71	10.81
d.f.	6	6	5	3	5	5

Bk.	10	11	12	13	14
χ^2	19.82**	.24	1.00	19.67**	61.84***
d.f.	5	2	3	5	5

(c) Book 7

Bk.	1	4	5	6	8	9
χ^2	18.20**	19.64**	10.03*	6.86	7.04	2.69
d.f.	6	6	4	3	4	4

Bk.	10	11	12	13	14
χ^2	20.62***	.37	1.90	20.97***	78.36***
d.f.	4	2	4	4	4

[1] See above, Table 4.16.

CHAPTER SIX

THE *ARTHAŚĀSTRA*, BHĀRUCI AND MEDHĀTITHI

In 1965 Dr. Dieter Schlingloff published an important study of the parallel passages in the *Arthaśāstra* and one of the earliest extant commentators on Manu, Medhātithi.[1] Schlingloff found altogether 19 passages common to the two texts, which he published in his article in parallel columns with a wealth of annotation giving variant readings and parallels in other works, such as the *Kāmandakīya Nītisāra* and Somadeva's *Nītivākyāmṛta*, thus completing the work begun by J. Jolly.[2]

The importance of Schlingloff's study lies not so much in his conclusions regarding the relative purity of the textual tradition by which the *Arthaśāstra* has been handed down to us, the corruptions to which the text of Medhātithi has been subject, and the improved readings for Medhātithi which a comparison with the *Arthaśāstra* affords, important as these are: it consists rather in the startling conclusion he reaches concerning the relation of the two texts, namely, that Medhātithi has drawn not on the *Arthaśāstra* itself but from an earlier *arthaśāstra* source on which the author of the *Kauṭilīya Arthaśāstra* also drew. This proceeds from the assumption that citations tend to be word for word, or at least, when the author quotes from memory, he does not alter the sense of his original, much less contradict it.[3] 'Reworkings' (Bearbeitungen) such as those of Kāmandaka and Somadeva are explicitly excluded from the jurisdiction of this assumption. Since, then, in the passages common to the *Arthaśāstra* and Medhātithi there are to be found differences of word order, juxtapositions of ideas, differences of content and

---

[1] "Arthaśāstra-Studien" in *Wiener Zeitschrift für die Kunde Süd- und Ostasiens 9*, 1965, p. 1 ff.

[2] "Kollektaneen zum Kauṭilīya Arthaśāstra" (*ZDMG 68*, 1914, p. 345 ff; *69*, 1915, p. 369 ff.) gives extensive parallels in various works; the relation with Medhātithi is noted in "Textkritische Bemerkungen zum Kauṭilīya Arthaśāstra", *ZDMG 70*, 1916, pp. 547-54; *71*, 1917, pp. 227-39; 414-28; *72*, 1918, pp. 209-23.

[3] Schlingloff, p. 25: "Zitate jedoch pflegen wörtlich zu sein, oder doch zumindest—wenn der Autor aus dem Gedächtnis zitiert—ihrem Sinne nach nicht von dem zitierten Text abzuweichen oder diesem gar zu widersprechen".

even contradictions, Medhātithi cannot have drawn from the *Arthaśāstra* itself, but rather from the tradition on which the latter depends. The similarities in the passages, however, show that the *Arthaśāstra* was constructed of the same materials.[1] Although he does not say so, we must infer that Schlingloff views Medhātithi as preserving passages from this 'Arthaśāstra-Quelle' more or less in their original form and the author of the *Kauṭilīya* as having changed or reworked them, standing in a relation to it similar to Kāmandaka's or Somadeva's relation to the *Arthaśāstra* itself.

Not long before Schlingloff's article appeared Professor J. D. M. Derrett published parallel passages from the *Arthaśāstra*, Medhātithi and an earlier commentary on Manu, the *Manuśāstra-vivaraṇa* of Bhāruci, a manuscript of which had recently been discovered in the University of Travancore, for the the text of which Professor Derrett is preparing an edition and translation.[2] Of the five passages common to the three texts presented in this paper, four corresponded to four passages of the 19 published by Schlingloff, the other one having been overlooked by the latter since it has inadvertently been omitted from Jha's text of Medhātithi. It appeared, then, that the picture was somewhat changed, for it is certain that the *Vivaraṇa* is earlier than Medhātithi's *Manubhāṣya*, and that the text of the *Vivaraṇa* which we have, fragmentary though it is (it begins with the first quarter of Manu, Book 6), is of the same work which Medhātithi had before him and which he often drew from and sometimes named.[3] But the picture was not greatly altered: if Medhātithi got some of his *arthaśāstra* material from Bhāruci, the bulk of it came from elsewhere, or so it seemed when Schlingloff appended a note to his article, taking into account the recently-published information of Derrett in the following stemma: [4]

arthaśāstra-source

Bhāruci   Kauṭilīya

?

Medhātithi

---
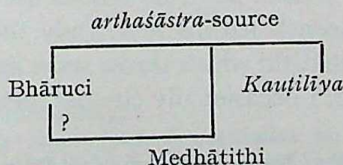
[1] Schlingloff, p. 31.

[2] "A Newly-discovered Contact between Arthaśāstra and Dharmaśāstra: the Role of Bhāruci" in *ZDMG 115*, 1965, p. 134 ff.

[3] Derrett, p. 141, fn. 20: Professor Derrett has collected other such references which will be included in the notes to the text and translation, to be published by the Centre du sud-est asiatique, University of Brussels.

[4] Schlingloff, p. 38.

It seemed to me strange that Medhātithi should draw some of his *arthaśāstra* material from Bhāruci, but not all. Accordingly, and thanks to the kind loan of a roman transcript of Bhāruci on Manu, Book 7, by Professor Derrett, I searched for other *Arthaśāstra*-Bhāruci-Medhātithi parallels.

The search was simple with the extensive work of Schlingloff before me; I quickly found that all but six of Schlingloff's *Arthaśāstra*-Medhātithi correspondences are also represented in Bhāruci, and two more which Schlingloff had not found besides. The picture changes again.

I present below the twenty-one extracts, in order of their appearance in Bhāruci and Medhātithi. For the *Arthaśāstra* I use Kangle's text and his notes thereon in which D represents the recently discovered Devanāgarī manuscript, G_1 the Grantha manuscript on which Shamasastry based his edition, G_2 the transcript of a Grantha manuscript used for the Jolly-Schmidt edition ($G = G_1$, G_2), M_1 the manuscript in Malayalam script chiefly used by Ganapati Sastri for his text according to Kangle ($M = M_1$, M_2, M_3) and T a manuscript in Telegu characters. D is a northern manuscript, the others, southern; the various commentaries are given as Cb, Cj, Cn, Cnn, Cp, and Cs, the last being Ganapati Sastri's *Śrīmūla*; the Jolly-Schmidt edition is referred to as 'p'. For Bhāruci the text is Derrett's roman transcript of a Devanāgarī copy of the original in Malayālam script. For Medhātithi the text is that of Ganganatha Jha [1] with variants supplied from the editions of V.N. Mandalik (Mand.) [2] and Jagannath R. Gharpure (Ghar.) [3], and Jha's notes on Gharpure's text which preceded his own edition of the text (Jha (*Notes*)).[4] I have not thought it necessary to improve the readings, *sandhi* and punctuations of Medhātithi, the latter showing how the editor, who appears to have made no serious use of the *Arthaśāstra*, has occasionally misconstrued his text. Only those variants in the *Arthaśāstra* and Medhātithi which throw some light on the relations of the texts are cited. I occasionally cite parallels from the *Kāman-*

---

[1] *Manu-Smṛti with the 'Manubhāṣya' of Medhātithi* (*Bibl. Ind.* no. 256), vol. 2, Calcutta, 1939. Jha's translation appeared earlier than the text (vol. 3, pt. 2, Calcutta, 1924).

[2] *Mānava-Dharma-Śāstra with the Commentaries of Medhātithi, Sarvajña-nārāyaṇa, Kullūka, Rāghavānanda, Nandana and Rāmachandra*, Bombay, 1886.

[3] *Collection of Hindu Law Texts*, no. 9, 1920.

[4] *Manu-Smṛti: Notes. Part 1: Textual*, Calcutta, 1924.

dakīya Nītisāra (*KN*) and its commentator Śaṅkarārya from the edition of T. Ganapati Sastri [1] and Somadeva's *Nītivākyāmṛta* (*NV*) from that of Pt. Pannālāla Soṇī [2] with variants, where pertinent, from Jolly's "Kollektaneen".[3]

I must say at once that in annotating these passages I have made full use of Schlingloff's excellent notes, and have adopted his method of arrangement. At the same time, bringing Bhāruci into the the comparison has meant that some variants which had been of no interest in comparing the two texts became relevant when considering the interrelations of the three, and so the whole ground had to be gone over. A few new passages from Kāmandaka and Somadeva have also been supplied.

1. *The Four Vices Born of Lust* (Schlingloff 19; Derrett I)

Drink (negative) [4]

(Kauṭilya: Drink worse than woman)		(Manu: Drink worse than gambling)
Arth. 8.3	Bhār. 7.52	Medh. 7.52
	(pānadyūtayoḥ pānaṃ garīyaḥ /)	(pānadyūtayoḥ pānaṃ garīyaḥ /)
1.a. pānasaṃpat — samjñā-nāśo 'nunmattasyon-mattatvam apretasya pretatvaṃ kaupīnadar-śanaṃ śrutaprajñāprā-ṇavittamitrahāniḥ sadbhir viyogo 'nartha-saṃyogas tantrīgītanai-puṇyeṣu cārthaghneṣu prasaṅga iti /61/	tatra hi samjñāpraṇā-śaḥ/ anunmattasyon-mattatva (*lacuna*) sya pretatvaṃ śrutaprajñā-prahāṇaṃ mitrahāniḥ sadbhir viyogaḥ asad-bhiś ca prayogaḥ/ gītā-diṣu cārthasvapneṣu prasaṅgaḥ/ rahasya-mantraprakāśaṃ madavegeneti pānadoṣaḥ/	tatra hi samjñāpraṇā-śaḥ, anunmattasyon-mattatvam, apretasya pretatvaṃ kaupīna-prakāśanaṃ, śrutapra-jñāprahāṇaṃ, mitra-hāniḥ, sadbhir viyogaḥ, asadbhiś ca sampra-yogaḥ, gītādiṣv artha-ghneṣu prasaṅgaḥ, rata-mantraprakāśanaṃ ca, mānino 'py upahāsyatā, gambhīraprakṛter api yatkiñcanavāditā madavegeneti, pānadoṣāḥ/

---

[1] *TSS*, no. 14, Trivandrum 1912.

[2] *Māṇikacandra-Digambara-Jaina-Granthamālā*, no. 22, Bombay, Saṃvat 1979 (A.D. 1923). Improved readings are contained in a second volume (no. 34 of the series, Saṃvat 1989, A.D. 1933). References are to the first volume unless otherwise stated. [3] Cited above, p. 132, fn. 2.

[4] Cf. *KN* 15.60-2: *vamanaṃ vihvalatvaṃ ca samjñānāśo vivastratā/ bahva-baddhapralāpitvam akasmād vyasanaṃ muhuḥ// prāṇaglāniḥ suhṛnnāśaḥ prajñāśrutamatibrahmaḥ/ sadbhir viyogo 'sabdhiś ca saṃyogo 'narthasaṃ-gamaḥ// skhalanaṃ vepathus tandrī nitāntaṃ strīniṣevanam/ ity ādi pānavya-sanam atyantaṃ sadvigarhitam//*

Gambling (positive)

(Piśuna: Hunting is
worse than gambling)

b. dyūte tu jitam evākṣa-viduṣā yathā Jayatsena-Duryodhanābhyām iti/ /41/	dyūte jitam evākṣa-duṣā anakṣajñasyāpi pākṣikaḥ parājayaḥ/	dyūte tu jitam evāk-ṣaviduṣā, anakṣajñas-yāpi pākṣikaḥ parā-jayaḥ/

Gambling (negative) [1]

(Kauṭilya: Gambling
worse than hunting)

	(dyūtastrīvyasanayoś ca dyūtaṃ garīyaḥ/)	(strīdyūtavyasanayor dyūtavyasanaṃ garīyaḥ/)
c. tad eva vijitadravyam āmiṣaṃ vairānubandhaś ca [2] /44/ sato 'rthasya vipratipattir asataś cār-janam apratibhukta-nāśo mūtrapuriṣadhā-raṇabubhukṣādibhiś ca vyādhilābha iti dyūta-doṣāḥ [4] /45/ (Kauṇapadanta: Gam-bling worse than women) sātatyena hi niśi pradīpe mātari camṛtāyāṃ dīvy-aty eva kitavaḥ/ 48/ kṛcchre ca pratipṛṣṭaḥ kupyati /49/	yena tadaiva jitadrav-yaḥ tasyāpi bhavati tathā tannimitto vairānubandhaḥ/ jayaḥ sādhāraṇaḥ kevalaḥ parājayaḥ anubhakta-nāśaḥ/ mūtrapurīṣave-gadhāraṇāc ca śarīratan-traśaithilyaṃ vyādhini-dānam āsevanena kṣudrādibhiś ca pīḍāti-śayena/ mātary api ca mṛtāyāṃ dīvyaty eva/ kitavaḥ kṛcchreṣu ca pṛcchyamānaḥ suhṛd-bhir api kupyatīti dyūtadoṣāḥ/	yena tad eva jitaṃ dravyaṃ tasyāpi viṣaṃ bhavati/ [3] tathā ca tannimitto vairānu-bandhaḥ jayaḥ sādhāra-ṇaḥ kevalaṃ parājayaḥ, bhuktanāśaḥ/ mūtrapu-rīṣavegadhāraṇāc ca śarīre śaithilyaṃ vyā-dhinidānam eva/ tena kṣudrādibhiḥ svapīḍāti-śayāt/ mātary api ca mṛtāyāṃ dīvyaty eva/ kṛtakṛtyeṣu ca na suhṛdbhir api kṛṣyate/ taptāyasapiṇḍavat paradravyāṇi pariha-rato na pratyayate ca/ kṣudhite durgate 'nnādyupapattyupekṣā viṣayatā sarvaguṇas-ampannasyāpi tṛṇavad avajñāyate/ iti dyūtadoṣāḥ/

---

[1] Cf. *KN* 15.46, 49: *arthanāśakriyāvaśyaṃ nityaṃ vairānubandhitā/ saty apy arthe nirāśatvam asaty api ca sāśatā// gūhanaṃ mūtraśakṛto kṣutpipāso-papīḍanam/ ity ādīṃs tantrakuśalā dyūtadoṣān pracakṣate// NV* (2) 16.10-13: *dyūtāsaktasya kim apy akṛtyaṃ nāsti/ mātary api hi mṛtāyāṃ dīvyaty eva kitavaḥ/ piśunaḥ sarveṣām aviśvāsaṃ janayati/ divāsvāpaḥ guptavyādhivyā-lānām utthāpanadaṇḍaḥ sakalakāryāntarāyaś ca/*

[2] Kangle: "GMT *vairabandhaś ca*, (Cn)." Bhār., Medh. agree with Kangle's text.

[3] Ghar. v. l., Jha (*Notes*): *viṣī bhavati*, "as in N(andana)."

[4] Kangle: "G₁T *dyūtadoṣaḥ*." Bhār., Medh. agree with Kangle's text.

Women (positive)

(Kauṇapadanta:
Gambling worse than
women)

d. strīvyasane tu [1] snāna-
pratikarmabhojan-
abhūmiṣu bhavaty eva
dharmārthaparipraśnaḥ
/50/ śakyā ca strī rāja-
hite niyoktum, upāṃśu-
daṇḍena vyādhinā vā
vyāvartayitum avasrā-
vayituṃ vā iti/ 51/

strīvyasane tv apatyo-
tpattiḥ pratikarmabho-
janabhūyiṣṭham anusa-
vanam dharmārtha-
parigrahaḥ/ śaktā ca
strī rājahite niyoktum
apavāhayituṃ vā/

strīvyasane tv apaty-
otpattiḥ pratikarma-
bhojanabhūyiṣṭhānu-
bhavanaṃ dharmārtha-
pratigrahaḥ/ śakyā ca
strī rājahite niyoktum
apavāhayituṃ vā/

(Kauṭilya: Drink worse
than women)

strīvyasane bhavaty
apatyotpattir ātmarak-
ṣaṇaṃ cāntardāreṣu,
viparyayo vā bāhyeṣu
agamyeṣu sarvocchit-
thiḥ /59/

Women (negative) [2]

(Kauṭilya: Women
worse than gambling)

e. adarśanaṃ kāryanir-
vedaḥ [3] kālātipātanād [4]
anartho dharmalopaś [5]
ca tantradaurbalyaṃ
pānānubandhaś [6] ceti
/54/

(strīmṛgavyasanayoḥ
strīvyasanaṃ garīyaḥ/)
adarśanaṃ kāryāṇāṃ
strīvyasanāsaṅgeṣu
rājakāryeṣu nirvedaḥ/
kālātipātanam/ dhar-
malopaḥ/ pānadoṣā-
nubandhaḥ/ artha-
ghneṣu ca nṛttādiṣu
prasaṅga iti/

(strīmṛgayāvyasanayoḥ
strīvyasanaṃ garīyaḥ/)
adarśanaṃ kāryāṇāṃ,
strīvyasanasaṃgena
rājakāryeṣu ca nirvedaḥ,
kālātipātanaṃ, dharma-
lopaḥ, pānadoṣānuban-
dhaḥ, arthaghneṣu
cānṛtādiṣu prasaṅga iti/

---

[1] Kangle: "GT *strīvyasaneṣu tu*." Bhār., Medh. agree with Kangle's text.
[2] Cf. *KN* 15.56: *kālātipātaḥ kāryāṇāṃ dharmārthaparipīḍanam/ nityābhy-
antaravartitvāt sādhuprakṛtikopanam//*
[3] Kangle: "G₂T om. *kāryanivedaḥ*." Bhār., Medh. support Kangle's text.
[4] Kangle: "T *kāryātipāta-*." Bhār. and Medh. agree with Kangle's text.
[5] Kangle: "GMT *-danarthadharmalopaś ca* (em.)."
[6] Kangle: "T *vāsānubandhaḥ*." Bhār and Medh. agree with Kangle's text.

Hunting (positive) [1]

(Kauṭilya: Dice worse
than hunting)

f. mṛgayāyāṃ tu vyāyā-
maḥ śleṣmapittame-
dahsvedanāśaś cale
sthite [2] ca kāye lakṣa-
ricayaḥ kopabhayasthā-
neṣu ca mṛgāṇāṃ citta-
jñānam anityayānam
ceti/ 46/

mṛgayāyāṃ tu vyāyā-
mapittaśleṣmavadhaḥ
svedādināśaḥ/ cale
sthire ca kāye lakṣa-
paricayaḥ/ praharaṇa-
vaiśāradyopajananena
āsanaparicayaś ceti/

mṛgayāyāṃ tu
vyāyāmaḥ pittaśleṣma-
bandhaḥ, medādināśaḥ,
cale sthire vā kāye [3]
lakṣyaparicayaḥ,[4]
praharaṇe [5] vaiśārad-
yopajananaṃ grāmya-
janaparijayaś ceti/

2. *The Ideal Minister* [6] (Schlingloff 9)

Arth. 1.9

jānapado 'bhijātaḥ
svavagrahaḥ kṛtaśilpaś
cakṣuṣmān prājño
dhārayiṣṇur dakṣo
vāgmī pragalbhaḥ
pratipattimān utsāha-
prabhāvayuktaḥ kleśa-
sahaḥ śucir maitro
dṛḍhabhaktiḥ śīlabalā-
rogyasattvayuktaḥ [8]
stambhacāpalahīnaḥ [9]
saṃpriyo vairāṇām
akartety amātyasaṃ-
pat/ 1/

Bhār. 7.54

tad yathā prājñaḥ
suvigrahaḥ dhārayiṣṇur
dakṣo vāgmī pragal-
bhaḥ pratipattimān
utsāhaprabhāvaguṇa-
yuktaḥ kleśasahaḥ
śucir maitraḥ śīlabalā-
rogyayuktastambha-
cāpalahīno vairā
(lacuna)

Medh. 7.54

tad yathā prājñaḥ
dṛḍhakārī dhārayiṣṇur
dakṣaḥ vāgmī prabalaḥ
pratipattimān utsāha-
prabhāvayuktaḥ
kleśasahaḥ śucir
dānaśīlaḥ yogyasatva-
yuktaḥ [7] stambhacāpa-
lahīnaḥ priyo vairiṇām
akarteti.

---

[1] Cf. *KN* 15.26: *jitaśramatvaṃ vyāyāma āmamedaḥkephakṣayaḥ/ calasthi-
reṣu lakṣeṣu bāṇasiddhir anuttamā//* (See Schlingloff for copious references.)
[2] Kangle: "T *sthire*". Bhār., Medh., *KN* agree with T against Kangle's
text.
[3] So Jha (*Notes*), "as in S(arvajñanārāyaṇa)." Mand., Ghar. *kāle*.
[4] Mand. *lakṣaparicayaḥ*, Ghar. *lakṣaḥ paricayaḥ*.
[5] Mand. *praharaṇam*.
[6] Cf. *KN* 4.27-30: *svavagraho jānapadaḥ kulaśīlabalānvitaḥ/ vāgmī pragal-
bhaś cakṣuṣmān utsāhī pratipattimān// stambhacāpalahīnaś ca maitraḥ kleśa-
sahaḥ śuciḥ/ satyasattvadhṛtisthairyaprabhāvārogyasaṃyutaḥ// kṛtaśilpaś ca
dakṣaś ca prajñāvān dhāraṇānvitaḥ/ dṛḍhabhaktir akarttā ca vairāṇāṃ sacivo
bhavet// smṛtis tatparatārtheṣu vitarko jñānaniścayaḥ/ dṛḍhatā mantraguptiś
ca mantrisaṃpat prakīrtitā//*
[7] Mand. *-yuktastambha-*.
[8] Kangle: "GM *-sattvasaṃyuktaḥ*". Medh. and, partly, Bhār. agree with
Kangle's text.
[9] Kangle: "GM *-cāpalyavaijitaḥ*". Bhār., Medh., *KN* agree with Kangle.

3. *Four Tests for a Minister* [1] (Schlingloff 14; Derrett III)

Arth. 1.10	*Bhār.* 7.54	*Medh.* 7.54
a. mantripurohitasakhaḥ sāmānyeṣv adhikaraṇeṣu sthāpayitvāmātyān upadhābhiḥ śodhayet/1/	(*lacuna*) parīkṣocyate/	. . . dharmārthakāma- bhayopadhābhiḥ/ seyaṃ parīkṣocyate/
b.(1) purohitam ayājyayāja- nādhyāpane niyuktam amṛṣyamāṇaṃ rājāvak- ṣipet/2/ sa sattribhiḥ śapathapūrvam ekaikam amātyam upajāpayet— 'adhārmiko 'yaṃ rājā, sādhu dhārmikam anyam asya tatkulīnam aparuddhaṃ [4] kulyam e- kapragrahaṃ sāmantam āṭavikam aupapādikam vā pratipādayāmaḥ, sarveṣām etad rocate kathaṃ vā tava' iti/3/ pratyākhyāne śuciḥ/ iti dharmopadhā/4/	purohitaḥ svalpe kārye rājñā vyājenākṣiptaḥ amṛṣyamāṇaḥ saśapa- tham ekaikam amātyam upajapet/ adhārmiko 'yam rājā/ sādhu dhār- mikam ekaṃ kulīnam avaruddham ekapra- graham asāmantam āṭavikaṃ vā pratipāda- yāmaḥ/ anyebhyaś ca mantribhya etad rocate/ bhavatas tu kathaṃ iti/ pratyākhyāte dharmo- padhāśuddhaḥ/	purohitaḥ—svakārye [2] rājñā vyājenādhikṣiptaḥ bahunā 'rthasampradā- nenāptapuruṣair ekaikam amātyam upajapet rājavināśaya— 'etac ca sarvamantribho [3] rocate, atha kathaṃ bhavate' iti pratyākhyāne 'dharmo- padhāśuddhaḥ'/ [5]
(2) senāpatir asatpragra- heṇāvakṣiptaḥ sattri- bhir ekaikam amātyam upajāpayet lobhanī- yenārthena rājavinā- śaya,[8] 'sarveṣām etad rocate, kathaṃ vā tava' iti/5/ pratyākhāne śuciḥ/ ity arthopadhā/6/	senāpatir asatprati- graheṇāvakṣipto rājñā sarvapratyakṣaṃ bahunā 'rthasaṃ- pradānenāptapuruṣair ekaikam amātyam upajaped rājavināśaya/ etac ca sarvamantribhyo rocate 'tha kathaṃ bha- vata iti/ pratyākhyāte 'rthopadhāśuddhaḥ/	senāpatiḥ kenacid apadeśena [6] pūrvavad adhikṣiptaḥ [7] bahunā ca sampradānenāpta- puruṣair ekaikam amātyam [9] upajapet rājavināśaya—'etac ca sarvamantribhyo rocate, atha kathaṃ bhavate' [10] iti pratyākhyāne [11] arthopadhāśuddhaḥ [12]

---

[1] Quoted by Śaṅkarārya on *KN* 4.26.

[2] Maṇḍ. Ghar., *svalpakārye*.

[3] Maṇḍ., Ghar. *sarvaṃ mantribhyo*.

[4] Kangle: "GM *avaruddhaṃ*"; also Śaṅkarārya. Bhār. agrees with GM, Śaṅkarārya against Kangle's text.

[5] Maṇḍ. *arthopadhāśuddhaḥ*.

[6] Ghar. *upadeśena*.

[7] Ghar. *avakṣiptaḥ*.

[8] Kangle: "G₁ *-vināśanāya*." Bhār., Medh. agree with Kangle's text.

[9] Ghar. *ekaikamātyam*.

[10] Ghar. *bhavata*.

[11] Ghar. *ity ākhyāne*.

[12] Jha (text) gives this passage twice, the first time as *dharmopadhā*; it is missing in Maṇḍ., who gives the preceeding as *arthopadhā*.

(3) parivrājikā labdhaviś-
     vāsāntaḥpure kṛtasat-
     kārā mahāmātram
     ekaikam upajapet—
     'rājamahiṣī tvāṃ
     kāmayate kṛtasamāga-
     mopāyā, mahān arthaś
     ca te bhaviṣyati' iti/7/
     pratyākhyāne śuciḥ/
     iti [2] kāmopadhā /8/

parivrājikāntaḥpure
labdhaviśvāsā ekaikam
amātyam upajaped
rājamahiṣī bhavataṃ
kāmayate tatkṛtasam-
āgamopāyāco

parivrājikā antaḥpure [1]
labdhaviśvāsā ekaikam
amātyam upajapet—
'sā rājamahiṣī bhavan-
taṃ kāmayate kṛtasa-
māgamopāyeti' pra-
tyākhyāne 'kāmopa-
dhāśuddhaḥ'/

(4) prahavaṇanimittam eko
     'mātyaḥ sarvān
     amātyān āvāhayet/9/
     tenodvegena rājā tān
     avarundhyāt/10/ kāpa-
     ṭikāś cātra pūrvāva-
     rudhas teṣām arthamā-
     nāvakṣiptam ekaikam
     amātyam upajapet—
     'asatpravṛtto 'yaṃ rājā,
     sādhu enaṃ hatvānyaṃ
     pratipādayāmaḥ,
     sarveṣām etad rocate,
     kathaṃ vā tava' iti/11/
     pratyākhyāne śuciḥ/ iti
     bhayopadhā/12/

ptapuruṣaḥ kaścid
amātyyeṣu mantram
avaśrāvayed imaṃ
pravādam upaśrutya
bhavatāṃ nigraho
rājñā dhṛta iti/ teṣām
eva cānyatamaḥ
kṛtasaṃvitkaḥ pra-
tyekaṃ tān rājāpat-
yeṣūtsāhayet/ tatra ye
pratyācakṣate te
bhayopadhāśuddhāḥ/

rājaprayuktā eva kecit
puruṣāḥ pravādam [3]
āviṣkuryuḥ, 'kṛtasa-
mayair amātyai rājā
hanyata' iti/ upalab-
dhapravādaḥ [4] purohi-
tasyāptaḥ kaścid
amātyeṣu mantraṃ
śrāvayet—'imaṃ
pravādam upaśrutya
bhavatāṃ nigraho
rājñā kriyata' iti/
teṣām eva cānyatamaḥ
pūrvam eva kṛtasaṃ-
vitkaḥ pratyekaṃ
rājāmātyeṣūtsāhayet/
tatra ye pratyācakṣate
te 'bhayopadhāśud-
dhāḥ'/

4. *The Ideal Kingdom* [5] (Schlingloff 10)

Arth. 6.1

(svāmyamātyajanapa-
dadurgakośadaṇḍami-
trāni prakṛtayaḥ) /1/

Bhār. 7.56

(. . . sthānaṃ . . ./ tat
punaś caturvidhaṃ/
daṇḍakośapurarāṣṭrāṇi)/

Medh. 7.56

(. . . sthānam/ tac
caturvidham, daṇḍako-
śapurarāṣṭrāṇi/)

---

[1] Mand., Ghar. *parivrajikāntaḥpure.*
[2] Kangle: "-*yā mahānarthaś ca . . . sucir iti* missing in D." Medh. agrees
with D against Kangle's text.
[3] Mand., Ghar. *pramādam.*
[4] Mand., Ghar. *-pramādaḥ.*
[5] Cf. *KN* 4.49-54: *sasyākaravatī paṇyakhanidravyasamanvitā/ gohitā
bhūrisalilā puṇyair janapadair vṛtā// ramyā sakuñjaravanā vāristhalapathān-
vitā/ adevamātṛkā ceti śasyate bhūr vibhūtaye// saśarkoroṣapāṣāṇā sāṭavī
nityatᵃskarā/ rūkṣā sakaṇṭakavanā savyālā ceti bhūr abhūḥ// svājivo bhūguṇair
yuktaḥ sānūpaḥ parvatāśrayaḥ/ śūdrakāruvanikprāyo mahārambhakṛṣīvalaḥ//
sānurāgo ripudveṣī pīḍākarasahaḥ pṛthuḥ/ nānādeśyaiḥ samākīrṇo dhārmikaḥ
paśumān dhanī// idṛg janapadaḥ śasto mūrkhavyasanināyakaḥ/ taṃ varddhayet
prayatnena tasmāt sarvaṃ pravarttate//.*

	(tatra daṇḍo hastyaś-varathapadātayaḥ/ teṣāṃ pratikarma-poṣaṇarakṣaṇādi cintyam/ tathā kośasya hemarūpyabāhulyaṃ āyavyayarakṣaṇāni ca cintyāni/)	(tatra daṇḍo hastyaś-varathapadātayaḥ/ teṣāṃ pratikarma poṣaṇarakṣaṇādi cintyam [1]/na hy asamā-dhānam pradhānam/ tathā [2] kośasya hemarūpyabāhulyaṃ pracurarūpyatā ayavya-yalakṣaṇam ca/ kośasya yani nyāyasthānāni tāni na vyayitavyāni na vila-mbanīyāni bhṛtyānām/)
madhye cānte ca sthā-navān ātmadhāraṇaḥ paradhāranas cāpadi svārakṣaḥ svājīvaḥ śatrudveṣī śakyasāmantaḥ paṅkapāṣāṇoṣaravi-ṣamakaṇṭakaśreṇī-vyālamṛgāṭavīhīnaḥ kāntaḥ sītākhanidra-vyahastivanavān gavyaḥ pauruṣeyo guptagocaraḥ paśumān adevamātṛko vāristha-lapathābhyām upetaḥ sāracitrabahupaṇyo daṇḍakarasahaḥ karmaśīlakarṣako ˀbāliśasvāmy avaravar-ṇaprāyo [3] bhaktaśuci-manuṣya iti janapada-saṃpat/8/	tathā rāṣṭrasya deśa-paryāyasya svājīvya ātmasādhāraṇaḥ para-syādhāraṇo na ca durārakṣyaḥ/ paśalyaḥ śatruṣ (lacuna) akṣī sītāprayo guptagocaraḥ/ paśumān adevamātṛkaḥ/ āpadi daṇḍakarasaha ity evam ādi cintyam/	tathā rāṣṭrasya deśaparyāyasya svājīva ātmasaṃdhāraṇaṃ parasaṃdhāraṇena nadīvṛkṣāḥ paśavaḥ śatrudveṣākrāntaprāyaḥ guptigocaraḥ paśumān adevamātṛkaḥ āpadi ca daṇḍakaragraha ity evam ādi/

5. *Pacification of Recently Conquered Lands* (Schlingloff 17)

Arth. 13.5	Bhār. 7.56	Medh. 7.56
(labdhapraśamanam) a. sarvadevatāśramapūja-naṃ [4] ca vidyāvākya-dharmaśūrapuruṣāṇāṃ ca bhūmidravyadāna-parihārān kārayet,	labdhapraśamanāni devāśramadyāvatāṃ dhārmikāṇām ca śūrā-ṇāṃ ca dānamānābhyā yogaḥ ucitānāṃ cābhya-nujñānaṃ sarvaban-	labdhapraśamanaṃ ca devatāśramavidyāva-tāṃ [5] dhārmikānāṃ ca mānadānatyāgāyogaḥ uditānāṃ [6] cābhyanu-jñānaṃ sarvaban-

---

[1] Mand., Ghar. *cintyapratikarma* (?).

[2] Mand., Ghar. *ca yathā*.

[3] Kangle: "*daṇḍakara-* . . . *-varṇaprāyo* missing in T". Bhār., Medh. attest *daṇḍakara-*.

[4] Kangle: "G₁ *sarvatāśrama-*, T *sarvatrāśrama*." Bhār., Medh. support Kangle's text.

[5] Mand. *saṃvidyāvatām*; Ghar. *devatāsamaṃ vidyāvatām*.

[6] So Jha (*Notes*) after N(andana); Mand., Ghar. *avitānāṃ*.

sarvabandhanamokṣaṇam anugrahaṃ dīnānāthavyādhitānāṃ ca /11/	dhanamokṣaḥ/ anugraho dīnānāthavyādhitān	dhanamokṣaḥ/anugraho dīnavyādhitānām/
b. cātumāsyeṣv ardhamāsikam aghātam, paurṇamāsīṣu ca cātūrātrikam, rājadeśanakṣatreṣv aikarātrikam/12/ yonibālavadhaṃ puṃstvopaghātaṃ ca pratiṣedhayet/13/	utsāhānāñ cāpūrvāṇāṃ pra (*lacuna*)	utsavānāṃ cāpūrvāṇāṃ pravarttanam/ pravṛttānām anuvṛttiḥ/
c. yac ca kośadaṇḍopaghātakam [1] adharmiṣṭhaṃ vā caritraṃ [2] manyeta tad apanīya dharmyavyavahāraṃ [3] sthāpayet/14/	(*lacuna*) daṇḍoghātakarmādhārmikaṃ vā cāritram tad apanīya dharmavyavahārārtham sthāpayet/	yac ca kośadaṇḍopādhikam adhārmikacaritram tad apanīya dharmavyavahārān sthāpayet/
d. caritram akṛtaṃ dharmyaṃ kṛtaṃ cānyaiḥ pravartayet/ pravartayen na cādharmyaṃ kṛtaṃ cānyair nivartayet //24//	āha ca: adharmacāritram akṛta (*lacuna*) kṛtaṃ cānyaiḥ (*lacuna*)	adharmacāritram akṛtam anyasya kṛtaṃ vānyaiḥ pravarttayet/ na vādharma kṛtaṃ cānyair nivartayed iti/

6. *The Construction of the Fort* (Schlingloff 5)

Arth. 2.3	Bhār. 7.70	Medh. 7.70
vaprasyopari prākāraṃ viṣkambhadviguṇotsedham aiṣṭakaṃ dvādaśahastād ūrdhvam ojaṃ yugmaṃ vā ā caturviṃśatihastād iti kārayet, rathacaryāsaṃcāraṃ tālamūlaṃ murajakaiḥ kapiśīrṣakaiś cācitāgram/7/ pṛthuśilāsaṃhataṃ vā śailaṃ kārayet, na tv eva kāṣṭhamayam/8/	prākāreṇa veṣṭitaṃ viṣkambhadviguṇotsedhenaiṣṭikena śailena vā dvādaśahastocchritena tālamūlena kapiśīrṣatācitāgreṇa dṛdhavaprena pariṣkṛtaṃ mahīdurgam . . .	uktaprakāreṇa dviguṇotsedhenaiṣṭakena śailena dvādaśahastād ūrdhvam uddhatena tālamūlena kapiśīrṣacitāgreṇa dṛdhapraṇālyā parikṛtaṃ dhanurdurgam/

---

[1] Kangle: "GMT -*ghātikam*, (em.)".
[2] Kangle: "M *cāritraṃ*". Bhār. agrees with M, Medh. with Kangle's text.
[3] Kangle: "GMT *dharmavyava*-, (Cs)". Bhār., Medh. agree with the MSS. against Kangle's text and Ganapati Sastri's commentary.

7. *The Four Groups of Seducible Parties* [1] (Schlingloff 11)

Arth. 1.14	Bhār. 7.104	Medh. 7.104
(1) saṃśrutyārthān vipra-labdhaḥ, tulyakāriṇoḥ [2] śilpe vopakāre vā [3] vimānitaḥ, vallabhava-ruddhaḥ,[4] samāhūya parājitaḥ, pravāsopa-taptaḥ, kṛtvā vyayam alabdhakāryaḥ, sva-dharmād dāyādyād voparuddhaḥ, mānādhi-kārābhyāṃ bhraṣṭaḥ, kulyair antarhitaḥ, prasabhābhimṛṣṭastrī-kaḥ, kārābhinyastaḥ, paroktadaṇḍitaḥ, mithyācāravāritaḥ, sarvasvam āhāritaḥ,[5] bandhanaparikliṣṭaḥ, pravāsitabandhuḥ—iti kruddhavargaḥ/2/	tatra vipralabdhās tulyakāriṇaḥ śilpe copacāre ca vimānitā vallabhovaruddhaḥ pravāsitabandhuḥ ma (*lacuna*)

taḥ sakulyair antarhitaḥ sarvasvahārita ity evam ādi kruddhavargaḥ/ | tatra yena kṛtaṃ śilpaṃ kiṃcid upakāro vā darśitaḥ, tau vipralab-bhyete prasādane niyojyete avamanyete vā/ tad artho 'pi tatsamānaḥ śilpopakārī krudhyati, nāsyāsmadīyaṃ śilpam upakāro vopayujyate/ tādṛśā upajāpasahā bhavanti/ tathā vālla-bhyenopagṛhītaḥ, paścān mānādhikārā-bhyāṃ bhraṣṭaḥ pra-vāsitabandhutadval-labhaḥ [6] prasabham abhipūjya svīkṛtaḥ, sakulyair antarhitaḥ, sarvasvam āhāritas tatsamānakarmavidyo 'nyaḥ pūjyate so 'vadhīryate ity evam ādiḥ kruddhaḥ/ |
| (2) svayam upahataḥ viprakṛtaḥ, pāpakar-mābhikhyātaḥ, tulya-doṣadaṇḍenodvignaḥ, paryāttabhūmiḥ, daṇḍenopanataḥ, sarvādhikaraṇasthaḥ sahasopacitārthaḥ,[9] | pāpakarmā tulyadoṣaḥ daṇḍodvignaḥ anatara-bhūmidaṇḍopanatasar-vādhikaraṇasthaḥ sahasopacitārtha ity evam ādi bhītavargaḥ/ | kenacit kṛtaṃ paiśu-nyaṃ tatsamānadoṣe-bhyo daṇḍitam aṃtar-bhramadaṇḍapātāḥ sarvādhikārasthāḥ sahasopacitārthā [7] ity ādi lubdhavargaḥ/ [8] |

---

[1] Cf. *Pañcatantra* (F. Edgerton, *The Pañcatantra Reconstructed*, vol. 1, p. 40): *uktaṃ ca: sammānitavimānitāḥ, pratyākhyātāḥ, kruddhāḥ, lubdhāḥ, parikṣīṇāḥ svayam upagatāś (chadmanā pravārayituṃ śakyāḥ). atyantāsvakā-rābhinyastāḥ, samāhūya parājitāḥ, tulyakāriṇaḥ, śilpokakāre vimānitāḥ, pravāsopataptāḥ, tulyair antarhitāḥ pratyāhṛtamānāḥ tathā 'tyāhṛtavyavahārāḥ tatkulīnaśansavaḥ samavāye ca svadharmān na calanti, samantāc copadhā-kṛtyās ta iti.*

[2] Kangle: "D *tattulyakāriṇaḥ*, G₂ *tulyādhikāriṇoḥ*".

[3] Kangle: "D *śilpe copakāre ca*". Bhār. supports D against Kangle's text.

[4] Kangle: "D *vallabhāparuddhaḥ*". Bhār. supports Kangle's text.

[5] Shama Sastri *sarvasam āhārito*. Bhār. supports, Medh. agrees with, Kangle's text.

[6] Mand. *pravāsitabandhus tad-*.

[7] Mand. *daṇḍinaḥ taṃ sarvādhikārasthāḥ sahasopapātitārtha.*

[8] Jha (*Notes*): "for lubdhavargaḥ read bhītavargaḥ as in N(andana)".

[9] Kangle: "G₂M *sāhasopacitārthaḥ*". Bhār., Medh. agree with Kangle's text.

tatkulīnopāśaṃsuḥ,
pradviṣṭo rājñā,
rājadveṣī ca—iti
bhītavargaḥ/3/

(3) parikṣīṇaḥ, anyātta-
svaḥ, kadaryaḥ,
vyasanī,[1] atyāhitav-
yavahāraś ca—iti
lubdhavargaḥ/4/

taṭaryo vyasaṭ ity evam
ādi lubdhavargaḥ/

parikṣīṇaḥ kadaryo
śatrupūjām arthitaḥ
vyasanī bahu ṛna ity
ādir bhītavargaḥ/[2]

(4) ātmasaṃbhāvitaḥ,
mānakāmaḥ, śatrupū-
jāmarṣitaḥ, nīcair
upahitaḥ, tīkṣṇaḥ
sāhasikaḥ, bhogenā-
saṃtuṣṭaḥ—iti
mānivargaḥ/5/

ātmasaṃbhāvitaḥ
śatrupūjāmarṣito
nīcair upahatas tīkṣṇaḥ
sāhasiko bhogenāsan-
tuṣṭa ity evam ādir
mānivargaḥ/

ātmasaṃbhāvitaḥ
śatrupūjām arthitaḥ
nīcair upahataḥ tīkṣṇaḥ
sāhasiko bhogenāsaṃ-
tuṣṭa[3] ity evam ādir
avamānitavargaḥ/

8. *Five-fold Counsel*[4] (Derrett IV)

Arth. 1.15	*Bhār.* 7.147	*Medh.* 7.146
á.	pañcāṅgaṃ mantrayeta/	mantrapañcāṅgaṃ darśayiṣyate/
	tad yathā	imāny aṅgāni
(1) karmaṇām ārambho-pāyaḥ	karmārambhopāyaḥ	karmaṇ āmārambho-pāyaḥ
(2) puruṣadravyasaṃpad[5]	puruṣadravyasampad	puruṣadravyasaṃpat
(3) deśakālavibhāgo[6]	deśakālavibhāgaḥ	deśakālavibhāgaḥ
(4) vinipātapratīkāraḥ	vinipātapratīkāraḥ	vinipātapratīkāraḥ
(5) kāryasiddhir	kāryasiddhir iti/	kāryasiddhir iti/
iti pañcāṅgo mantraḥ /42/[7]		

---

[1] Kangle: "D *kadaryo mūlaharasthādātviko vyasani*". Medh. and appa-
rently Bhār. agree with Kangle's text.

[2] Jha (*Notes*): "for bhītavargaḥ read lubdhavargaḥ as in N(andana)".

[3] Mand. *śatrupūjārcanarathaḥ tīkṣṇasāhasiko homenāsaṃtuṣṭa ity.*

[4] The Medh. passage is found in Mand. 7.147 (om. *mantrapañcāṅgam
darśayiṣyate*) and Ghar. 7.148 (*mantrapañcāṅgam darśayiṣyate* in 7.147), om.
in Jha's text but present in his trans. at 7.146. Cf. *Pañcatantra* (Edgerton,
op. cit.) 1.467: *śāstre cā 'bhihitaḥ pañcāṅgo mantraḥ, tad yathā: karmaṇām
ārambhopāyaḥ, puruṣadravyasampat, deśakālavibhāgaḥ, vinipātapratīkāraḥ,
kāryasiddhiś ce 'ti*; and NV 10.25: *karmaṇām ārambhopāyaḥ puruṣadra-
vyasampad deśakālavibhāgo vinipātapratīkāraḥ kāryasiddhiś ceti paṃcāṃgo
mantraḥ/*

[5] Kangle: "G₂ *-dravyasaṃbandhadeśa-*". Bhār., Medh. agree with
Kangle's text.

[6] Kangle: "D *-vibhāgau*".

[7] Quoted by Śaṅkarārya on KN 12.36.

b. tān ekaikaśaḥ pṛcchet
samastāṃś ca/43/
hetubhiś caiṣāṃ mati-
pravivekān vidyāt ¹ /44/
avāptārthaḥ kālaṃ
nātikrāmayet ² /45/
na ³ dīrghakālaṃ
mantrayeta, na teṣāṃ
pakṣīyair ⁴ yeṣām
apakuryāt/46/ tasmād
rakṣen mantram/12/

tān ekaikaśaḥ pṛcchet
samastāṃś ca/ hetubhiḥ
sarveṣāṃ matiprivive-
kaṃ vidyād/ avāptār-
thaḥ/ kālaṃ nātipātayen
na ca dīrghamantraḥ
syāt/ na ca teṣāṃ pra-
tyakṣamantraṃ man-
trayet yeṣām apakuryāt/
guptamantraś ca syāt/

athavā prārthanākālaṃ
nātipātayet tatra
dīrgho mantraḥ syāt/ na
teṣāṃ brūyāt, gupta-
mantraś ca syāt/

9. *Betrayal of Counsel by Animals* ⁵ (Schlingloff 3)

Arth. 1.15

taduddeśaḥ saṃvṛtaḥ kathānām
aniḥsrāvī pakṣibhir apy anālokyaḥ
syāt/3/ śrūyate hi śukasārikābhir
mantro bhinnaḥ, śvabhir apy
anyaiś ca tiryagyonibhir iti/4/

Medh. 7.149

yat kiṃcit prāṇijātaṃ tan mantraya-
māṇo viśodhayet/ tataḥ pradeśād
apaśodhayet/ mantrabhedāśaṅkayā/
tiryagyoniṣu ca śukasārikādayo 'pi
mantraṃ bhindanti/

10. *The Training of Princes* ⁶ (Schlingloff 7)

Arth. 1.17

mahādoṣam abuddha-
bodhanam iti Kauṭilyaḥ
/30/ navaṃ hi dravyaṃ
yena yenārthajātenopa-
dihyate tat tad ācūṣati
/31/ evam ayaṃ nava-
buddhir yad yad ucyate
tat tac chāstropadeśam
ivābhijānāti/32/ tasmād
dharmyam arthyaṃ ⁸
cāsyopadiśen nādhar-
myam anarthyaṃ ca/33/
sattriṇas tv enaṃ 'tava
smaḥ' iti vadantaḥ
pālayeyuḥ/34/

Bhār. 7.152

. . . tava vayam ity
evaṃ vādibhiḥ satribhir
dharman arthañ ca
grāhayitavyam/ navaṃ
hi dravyaṃ yena yenār-
thajātenopadiśyate tat
tad evācūṣati/ evam
ayaṃ na buddhir yad
yad ucyate tat tat pra-
tipa dyate.

Medh. 7.152

tava vayam ity evam
ādibhir dharmam
arthaṃ ca te grāhayita-
vyāḥ/ navaṃ hi
dravyaṃ yena yenārtha-
jātenopadiśyate tat
tadā dūṣayati/ evam
asaṃskṛtabuddhayo
yad yad ucyate ⁷ tat tat
prathamaṃ gṛhnanti/
yadi asadbhiḥ saṃsṛ-
jyante tadā tat svabhā-
vas teṣāṃ prāpnoti/ te
ca duḥsaṃskāropadig-
dhāḥ na śakyante
vyasanebho nivar-
tayitum.

---

¹ Kangle: "p *hetubhiś caikaikaṃ matam praviśed vidvān*". Bhār. supports
Kangle's text against Jolly-Schmidt. ² Kangle: "D *krāmet*".
³ Kangle: "GM *ca teṣāṃ* (M₂ *na ca*)". Bhār. agrees with M₂.
⁴ Kangle: "G₁M₃ *pakṣair*, G₂ *ca rakṣed*, M₁ *parakṣyer*, M₂ *parakṣyair*,
M²vl. *pakṣyair*, p *ca rakṣed*".
⁵ Cf. *NV* 10.32-3: *anāyukto maṃtrakāle na tiṣṭhet/ tathā ca śrūyate* (Jolly:
śrūyate hi) *śukasārikābhyām anyaiś ca tiryagbhir maṃtrabhedaḥ/*
⁶ Cf. *NV* 5.70-1: *gurujanaśīlam anusaranti prāyeṇa śiṣyāḥ/ naveṣu mṛdbhā-
jeṣu lagnaḥ saṃskāro brahmaṇāpy anyathā kartuṃ na śakyate/.*
⁷ Mand., Ghar. *ucyante.*
⁸ Kangle: "D *dharmyam artham*, GM *dharmam artham*, (em.).—GM
nādharmam anartham". Bhār., Medh. agree with the MSS. against Kangle's
emendation.

10

uktaṃ ca—'nīlīrakte
vāsasi kuṃkumāṃ-
garāgo durādheyaḥ'/

b. virāgaṃ vedayeyuḥ/40/
priyam ekaputraṃ
badhnīyāt/41/ bahu-
putraḥ pratyantam any-
aviṣayaṃ vā preṣayed
yatra garbhaḥ paṇyaṃ
ḍimbho vā na bhavet
/42/ ātmasaṃpannaṃ
saināpatye yauvarājye
vā shāpayet/43/

vyasanebhyaś cainam
upāyato nivartayeyur
iti nityānuśāsanāc ca
kālena guṇasaṃpannaṃ
yauvarājye sthāpayet/
nirguṇān anyān praty-
anteṣu nikṣipet/

tasmāt te nityam
anuśāsanīyāḥ/ tatrāpi
ye guṇavantas tān
vardhayet/ itarānīṣat
saṃvibhajet/ jeṣṭham
mahāguṇam amatsaraṃ
yauvarājye 'bhiṣiṃcet/

11. *The Assassination of Kings* [1] (Schlingloff 15 ; Derrett V)

Arth. 1.20	*Bhār.* 7.153	*Medh.* 7.153
a. kakṣyāntareṣv [2] antar-vaṃśikasainyaṃ tiṣṭhet/13/ antargṛha-gataḥ sthavirastrīpari-śuddhāṃ devīṃ paśyet [3]/14/	kakṣyāntareṣv antar- uo vaṃśikasainyādhiṣṭhito 'ntaḥpuraṃ praviśet/ tatra sthavirastrīpari-śuddhāṃ devīṃ paśyen nāpariśuddhāṃ	kakṣāntareṣv antar-vaṃśikasainyādhiṣṭito 'ntaḥpuraṃ praviśet/ tatra sthavirastīṃ atiśuddhāṃ devīṃ paripaśyen nāpariśud-dhāṃ
b.(1) devīgṛhe līno hi [4] bhrātā Bhadrasenaṃ jaghāna,	devyā gṛhanilīno hi bhrātā Candrasenaṃ jaghāna	devīṃ/ gṛhalīno [5] hi bhrātā Bhadraseno
(2) mātuḥ śayyāntargataś ca putraḥ Kārūṣam/15/	mātuḥ śayanāntargataṃ ca putra-Kārūśaṃ	mātuḥ śayanāntargataḥ rājānaṃ jaghāna [6] kupuruṣa-
(3) lājān madhuneti viṣeṇa paryasya devī Kāśirājam,		

---

[1] Cf. *KN* 7.49-54: *snātānuliptaḥ surabhiḥ sragvī rucirabhūṣaṇaḥ/ snātāṃ viśuddhavasanāṃ paśyed devīṃ subhūṣaṇām// na ca devīgṛhaṃ gacched ātmīyāt sanniveśanāt/ atyantaṃ vallabho 'smīti visrambhaṃ strīṣu na vrajet// devīgṛhaṃ gato bhrātā Bhadrasenam amārayat/ mātuḥ śayyāntarālīnaḥ kārūśaṃ caurasaḥ sutaḥ// lāhān viṣeṇa saṃyojya madhuneti vilomya tam/ devī tu Kāśirājendraṃ nijaghāna rahogatam// viṣadigdhena Sauvīraṃ mekha-lāmaṇinā nṛpam/ nūpureṇa ca Vairūpyaṃ Jārūṣyaṃ darpaṇeṇa ca// Veṇyāṃ śastram samādhāya tathā cāpi Vidūratham/ iti vṛttaṃ pariharec chatrau cāpi prayojayet//* Different examples in *NV.* See Schlingloff, p. 29, fn. 104, for numerous parallels.

[2] Kangle: "D *kakṣā-*". Bhār., Medh. agree with Kangle's text.

[3] Kangle: "GM *paśyet, na kāṃcid abhigacchet*".

[4] Kangle: "D *nilīno* (for *līno hi*)". Medh. supports Kangle's text, Bhār. is in between.

[5] Mand., Ghar. *grahalīno.*

[6] Mand., Ghar. om. *rājānam jaghānaṃ.*

(4) viṣadigdhena nāpurena Vairantyaṃ,

viṣadigdhena nūpureṇa Vairantam jaghāna/

śaṇkhaviṣadigdhena nūpureṇāvantyaṃ [1] devī jaghāna mekhalayā [2]/ Sauvīraṃ

(5) mekhalāmaṇinā Sauvī- raṃ,

mekhalāmaṇinā Sauvīraṃ

(6) Jālūthaṃ ādarśena,

(7) veṇyāṃ gūḍhaṃ śastraṃ kṛtvā devī Vidūrathaṃ [3] jaghāna /16/

veṇyāṃ nigūḍhena śastreṇa Vidūrathaṃ/

veṇyāṃ gūḍhena śastreṇa Vidūrathaṃ/

c. tasmāt etāny āspadāni pariharet/17/

tasmād etāny āpadaḥ sthānāni yatnataḥ parīkṣeta/

tasmād etāni visraṃ- bhasthānāni yatnataḥ parīkṣeta/

d. muṇḍajaṭilakuhaka- pratisaṃsargaṃ bāhyā- bhiś ca dāsībhiḥ pratiṣedhayet/18/

muṇḍajaṭilakuhakapra- tisaṃsargaṃ bāhyābhiś ca dāsībhir antaḥpura- dāsīnāṃ pratiṣedhayet/

muṇḍajaṭilakuhaka- pratisaṃsargaṃ bāhyadāsībhir antaḥpuradāsīnāṃ pratiṣedhayet/

12. *The King's Agents* (Schlingloff 16; Derrett VI)

Arth. 1.11-12

Bhār. 7.154

Medh. 7.154

a. upadhābhiḥ śuddhāmāt- yavargo gūḍhapuruṣān utpādayet kāpaṭikodās- thitagṛhapatikavaide- hakatāpasavyañja- nān [5] sattritīkṣṇarasa- dabhikṣukīś ca/1/

(*lacuna*) ñcavargaḥ/ kāpaṭikodāsthita- grhapatikavaidehaka- tāpasavyañcanāḥ/

pañcavargaḥ kāpaṭiko- dāsthitagṛhapativaï- dehikatāpasavyañ- janāḥ [4]/

(1) paramarmajñaḥ pragal- bhaś chātraḥ [6] kāpa- ṭikaḥ/2/ tam arthamā- nābhyāṃ protsāhya [7] mantri brūyāt—'rājā- naṃ māṃ ca pramāṇaṃ kṛtvā yasya yad akuśa- laṃ paśyasi tat tadānīm eva pratyādiśa' iti/3/

paramarmajñaḥ pra- galbhaśchātraḥ kāpaṭi- kaḥ/ tad arthamānā- bhyāṃ upasaṃgṛhya mantrī brūyād rājānaṃ māṃ ca pramāṇīkṛtya yatra yad akuśalaṃ paśy (*lacuna*) aṃ tvayeti/

paramadharmajñāḥ pragalbhacchātrāḥ 'kāpatikāḥ'/ tān arthamānābhyāṃ upasaṃgṛhya mantrī brūyāt—'rājānaṃ māṃ ca pramāṇaṃ kṛtvā yatra yad akuśalaṃ tat tadānīm evāśrāvyaṃ [8] tvayeti'/

---

[1] Schlingloff: "Es scheint sich hier um keinen Schreibfehler, sondern um eine echte Variante zu handeln; im Harṣacarita, ed. Calcutta, 1876, p. 168 findet sich die Namensform *Vairājyam Avantidevam* (ed. Bombay 1892, p. 224, 5: *Vairantyam Rantidevam*); im Kommentar zu Kām. Nītis.: *Avanti- rājam Vairūpyam*."   [2] Mand., Ghar. *mekhalāyāḥ*.

[3] Kangle: "GM *Vidūrathaṃ*". Bhār. agrees with GM, Medh. agrees with Kangle's text.   [4] Mand., Ghar. -*grhapatikavaidehika*-.

[5] Cf. *NV* 14.8: *kāpaṭikodāsthitagṛhapativaidehikatāpasa*-.

[6] Kangle: "G₁M₃ *pragalbhacchātraḥ*". Bhār. and *NV* 14.9 (Bombay ed., *paramarmajñaḥ pragalbhaś chātraḥ kāpaṭika*) agree with Kangle's text, Medh. and *NV* (Jolly) with G₁M₃.

[7] Kangle: "GM *-mānābhyām utsāhya*".   [8] Mand., Ghar. *evācchātavyam*.

(2) pravrajyāpratyava-
sitaḥ [1] prajñāśaucayuk-
ta udāsthitaḥ [2] /4/ sa
vārttākarmapradiṣṭā-
yāṃ bhūmau prabhūta-
hiraṇyāntevāsī karma
kārayet/5/ karmaphalāc
ca sarvapravrajitānāṃ
grāsācchādanāvasathān
pratividadhyāt/6/
vṛttikāmāṃś copajapet
—'etenaiva veṣeṇa [3]
rājārthaś caritavyo
bhaktavetanakāle co-
pasthātavyam' iti/7/
sarvapravrajitāś ca
svaṃ svaṃ vargam
evam [4] upajapeyuḥ/8/

pravrajyāyāḥ pratyava-
sita udāsthitaḥ sa ca
prajñāśaucayuktaḥ/
sarvānnapradānasa-
marthāyājā prabhū-
tahiraṇyāntevāsinaḥ
karma kārayet/ kṛṣika
(*lacuna*) vasathān prati-
vidadhyāt/ teṣāṃ ye
vṛttikāmās tān upajapet
evam etenaiva vṛttena
rājārthaś caritavyo
bhaktavetanakāle
copasthātavyam iti/
sarvapravra (*lacuna*)
rgaṃ upajapeyuḥ/

pravrajyāyāḥ pratya-
vasita 'udāsthitaḥ'/ sa
ca prajñāśaucayuktaḥ
sarvānnapradāna-
samarthāyāṃ bhūmau
prabhūtahiraṇyāyāṃ
dāsakarma kārayet/
kṛṣikarmaphalaṃ tac
ca sarvapravrajitānāṃ
grāsācchādanāvasathān
pratividadhyāt/ teṣāṃ
ye vṛttikāmās tān
upajaped evam etenaiva
vṛttena rājārthaś
caritavyaḥ/ bhakta-
vetanakāle copasthāta-
vyam iti/ sarvapravra-
jitāḥ svaṃ svaṃ
karmopajapeyuḥ/

(3) karṣako vṛttikṣīṇaḥ
prajñāśaucayukto gṛha-
patikavyañjanaḥ/9/ sa
kṛṣikarmapradiṣṭāyāṃ
bhūmau—iti samānaṃ
pūrveṇa/10/

karṣako vṛttikṣīṇaḥ
prajñāśaucayukto gṛha-
pativyañjanaḥ sa kṛṣi-
karma kuryāt/ yathok-
tāyāṃ bhūmāv tit/

karṣako vṛttikṣīṇaḥ
prajñāśaucayukto
'gṛhapativyañjanaḥ'/
sa kṛṣikarma kuryād
yathoktāyāṃ bhūmāv
iti/

(4) vāṇijako vṛttikṣīṇaḥ
prajñāśaucayukto
vaidehakavyañjanaḥ-
/11/ sa vaṇikkarma-
pradiṣṭāyāṃ bhūmau—
iti samānaṃ pūrveṇa-
/12/

vāṇijiko vṛttikṣīṇaḥ
prajñāśaucayukto
vaidehakavyañjanaḥ sa
vaṇikkarma kuryāt
vaṇik pradiṣṭāyāṃ
bhūmāv iti samānaṃ
pūrveṇa/

vāṇijiko vṛttikṣīṇaḥ
prajñāśaucayukto
'vaidehikavyañjanaḥ'/
sa vaṇikkarma kuryāt
pradiṣṭāyāṃ bhūmāv
iti samānam/

(5) muṇḍo jaṭilo vā vṛtti-
kāmas tāpasavyañ-
janaḥ/13/ sa nagarā-
bhyāśe prabhūtamuṇ-
ḍajaṭilāntevāsī [6] śākaṃ

muṇḍo jaṭilo vā vṛttik-
āmas tāpasavyañjano
nagarabhyāśe prabhūta-
jaṭilamuṇḍāntevāsī
śākaṃ yavasamuṣṭiṃ vā

muṇḍo jaṭilo vā vṛttik-
āmaḥ 'tāpasavyañ-
janaḥ'/ sa nagar-
ābhyāśe [5] prabhūta-
jaṭilamuṇḍāntevāsī

---

[1] Kangle: "D *pravrajyāyāḥ pratyavasitaḥ*, M₂vl. *pravrajyāpratyapasṛtaḥ*".
Bhār., Medh. agree with D against Kangle's text.

[2] Cf. *NV* 14.10: *yaṃ kaṃcana samayam āsthāya pratipannācāryābhiṣekaḥ prabhūtāntevāsī prajñātiśayayukto rājaparikalpita vṛttir udāsthitaḥ/*.

[3] Kangle: "G₁ *doṣeṇa*". Cf. Meyer, *Gesetzbuch und Purāṇa* (*Indische Forschungen* 7), p. 18, n. 2: "So verlockend auch die Leseart *veṣeṇa* für *doṣeṇa* sein mag, so scheint doch auch *eva* auf die Richtigkeit des viel schwierigeren *doṣeṇa* hinzuweisen" (Schlingloff).

[4] Kangle: "GM om. *evam*." Bhār. and Medh. agree with GM.

[5] Mand., Ghar. *sannagarā-*.

[6] Kangle: "DM₂ vl. *prabhūtajaṭilā-*."

yavamuṣṭiṃ [1] vā
māsadvimāsāntaraṃ
prakāśam aśnīyāt
gūḍham iṣṭam āhāram
/14/ vaidehakānte-
vāsinaś cainaṃ samid-
dhayogair arcayeyuḥ-
/15/ śiṣyāś cāsyāvedaye-
yuḥ—'asau siddhaḥ
sāmedhikaḥ' iti/16/
samedhāśāstibhiś
cābhigatānāṃ aṅga-
vidyayā śiṣyasaṃ-
jñābhiś ca karmāṇy
abhijane 'vasitāny
ādiśet—alpalābham
agnidāhaṃ corabhayaṃ
dūṣyavadhaṃ tuṣṭidā-
naṃ videśapravṛtti-
jñānam, 'idam adya śvo
vā bhaviṣyati, idaṃ vā [2]
rājā kariṣyati' iti [3]/17/
tasya gūḍhāḥ sattriṇaś
ca [4] saṃpādayeyuḥ [5]/18/

māsadvimāsāntaritaḥ
prakāśam aśnīyāt/ dhar-
mavyañjanagūḍhaṃ
ca yatheṣṭam āhāraṃ/
tāpasavyañjanāntevāsi-
naś cainaṃ siddhayogair
arcayeyuḥ śiṣyāś cāso-
padiśeyuḥ/ lābhaṃ
nidānaṃ corabhayaṃ
duṣṭavadhabandhanaṃ
videśapravṛttim idam
adya śvo vā bhaviṣya-
tīdaṃ vā rājā kariṣya-
tīti/ tad asya sattriṇas
tatprayuktāḥ saṃpā-
dayeyur/

śākaṃ yavamuṣṭiṃ vā
māsāntaritaṃ prakāśam
aśnīyād dharmavyājena
gūḍhaṃ yatheṣṭham
āhāraṃ/ tāpasavyañ-
janāntevāsinaś cainaṃ
prasiddhayogair
arthalābham agre
śiṣyāś cādiśeyuḥ/
dāhaṃ caurabhayaṃ
duṣṭavadhaṃ ca videśa-
pravṛttaṃ, 'idam adya
śvo vā bhaviṣyatīdaṃ
vā rājā kariṣyati' iti/
tasya gūḍhamantriṇas
tat prayuktāḥ saṃpā-
dayeyuḥ/

b. ye cāpy asaṃbandhino [6]
'vaśyabhartavyās [7] te
lakṣaṇam aṅgavidyāṃ
jambhakavidyāṃ
tam māyaga
āśramadharmaṃ nimitt-
tam [8] antaracakram ity
adhīyānāḥ sattriṇaḥ,
saṃsargavyidaṃ vā/1/

ye cāsya rājño 'vaśyaṃ
bhartavyās te lakṣaṇa-
vidyām aṅgavidyāṃ
jambhakavidyāṃ
māyāgatam āśrama-
dharmaṃ nimitta-
jñānaṃ cādhīyamānāḥ
sattriṇaḥ syuḥ/

ye cāsya rājño
vaṃśalakṣaṇavidyāṃ
saṃgavidyāṃ jambha-
kavidyāṃ māyāgatam
āśramadharmaṃ
nimittajñānaṃ
cādhīyānā mantriṇas

c. tān rājā svaviṣaye man-
tripurohitasenāpatiyu-
varājadauvārikāntar-
vaṃśikapraśāstṛsamā-
hartṛsaṃnidhātṛpra-

tatrājaitāḥ pañcasaṃ-
sthā etair mantribhiḥ
saha svaviṣaye para-
viṣaye cāvasthāpayet/
mantripurohitasenā-

tatra rājā etat pañca
saṃsthāyatair man-
tribhiḥ svaviṣaye
'vasthāpayet/ mantri-
purohitasenāpati-

---

[1] Kaṅgle: "GM *yavasamuṣṭiṃ*." Bhār. agrees with GM, Medh. with
Kaṅgle's text.
[2] Kaṅgle: "G₂M om. *vā*". Bhār., Medh. agree with Kaṅgle's text.
[3] Kaṅgle: "D om. *iti*". Bhār., Medh. agree with Kaṅgle's text.
[4] Kaṅgle: "om. *ca*". Bhār., Medh. agree with Kaṅgle's text.
[5] Kaṅgle: "G₁ *saṃvādayeyuḥ*". Bhār., Medh. agree with Kaṅgle's text.
[6] Kaṅgle: "CbCj *cāsya saṃbandhi-*".
[7] Kaṅgle: "D *-vaśyakartavyās*". Bhār. agrees with Kaṅgle's text.
[8] Kaṅgle: "DG₁ *-dharmanimittam*". Bhār., Medh. agree with Kaṅgle's
text.

deṣṭrnāyakapaura-
vyāvahārikakār-
māntikamantripariṣ-
adadhyakṣadaṇḍadur-
gāntapālāṭavikeṣu [1]
śraddheyadeśaveṣaśil-
pabhāṣābhijanāpadeśān
bhaktitaḥ sāmarthyayo-
gāc cāprasarpayet/6/

patiyuvarājadauvāri-
kāntarvaṃśikādiṣu
śraddheyadeśave-
ṣaśilpabhāṣāvido jana-
padopadeśena sattriṇaḥ
sañcārayet/

yuvarājadauvārikāntar-
veśikādiṣu sadvyapa-
deśaveṣaśilpabhāṣāvido
janapadāpadeśena
mantriṇaḥ
saṃdhārayet/

d. sūdārālikasnāpakasaṃ-
vāhakāstarakakalpaka-
prasādhakodakaparicā-
rikā rasadāḥ kubjavā-
manakirātamūkaba-
dhirajaḍāndhacchad-
māno [2] naṭanartaka-
gāyanavādakavāgjīva-
nakuśīlavāḥ striyaś
cābhyantaraṃ cāraṃ
vidyuḥ/9/ [3]

tathā kubjavāmanaki-
rātamūkajaḍabadhirān-
dhachadmano naṭanar-
takagāyanādayaś ca
striyaś cābhyantara-
cāraṃ vidyuḥ/

tathā kubjavāmanakir
ātamūkajaḍabadhi-
rāndhanaṭanarttaka-
gāyanādayaḥ striyaś
cābhyantaracāriṇyo
'ṭavyāṃ

e. vane vanacarāḥ [4]
   kāryāḥ
śramaṇāṭavikādayaḥ [5]/
parapravṛttijñānārthāḥ
śīghrāś cāraparaṃparāḥ
//23//

vane vanacarāḥ kāryāḥ

śramiṇāṭavikādayaḥ
parapravṛttijñānārthāḥ
śīghrāś cāraparaṃparāḥ/

vane carāḥ kāryāḥ

grame grāmīṇakādayaḥ/
puruṣavyāpārārthāḥ
svavyāpāraparaṃ-
parāḥ//

parasya caite [6] bod-
dhavyās
tādṛśair eva tādṛśāḥ/
cārasaṃcāriṇaḥ saṃsthā
gūḍhāś cāgūḍhasaṃ-
jñitāḥ [7]//24//

parasya caite bod-
dhavyās
tāddṛśair eva tādṛśāḥ
cārasañcāriṇaḥ saṃsthā
gādhāś cāgūḍhasaṃ-
jñitaḥ/

parasparaṃ caite bod-
dhavyās
tādṛśair eva tādṛśāḥ/
vārisaṃcāriṇasthā
gūḍhāś ca [8] gūḍhasaṃ-
jñitāḥ//

13. *The Four Elements of the Circle of States*

Arth. 6.2

a. rājā ātmadravyapra-
kṛtisaṃpanno nayasyā-

Bhār. 7.155

tatraiteṣām eva yo rājā
prakṛtisaṃpanno 'ham

Medh. 7.155

tatra ca yo [9] rājā
prakṛtisaṃpanno

---

[1] Kangle: "D -*senādhipati*-". Bhār., Medh. agree with Kangle's text.
[2] Kangle: "D -*badhirāndhajaḍa*-".
[3] Cf. *KN* 13.44: *jaḍamūkāndhabadhiracchadmānāḥ paṇḍakās tathā/ kirātavāmanāḥ kubjās tadvidhā ye ca kāravaḥ//* and *NV* 14.8: -*jaḍamūkabadhi-rāndhacchadmānas*, etc.
[4] Kangle: "D *vane carāḥ*".
[5] Kangle: "D *śravaṇā*".
[6] Kangle: "G₁ *caike*". Bhār., Medh. agree with Kangle's text.
[7] Kangle: "D *cāgūḍhasaṃjñakāḥ*". Bhār., Medh. agree with Kangle's text.
[8] Mand. om. *gūḍhāś* ca.
[9] Mand. *tatra eṣa ca*; Ghar. *tatra eṣa tayo.*

dhiṣṭhānaṃ vijigīṣuḥ /13/ [2]	evemāṃ pṛthivīṃ jeṣya ity abhyukṣitā sa vijigī-ṣur utsāhaśaktiyogāt/	'ham evaṃvidhāṃ pṛthivīṃ vijyeṣye [1] 'bhyutthitaḥ sa viji-gīṣuḥ utsāhaśaktiyogāt/
	śatrus trividhaḥ/	śatrus trividhaḥ,
b.(1) bhūmyanantaraḥ prakṛtyamitraḥ,	(2) sahajaḥ	(2) sahajaḥ prākṛtaḥ
(2) tulyābhijanaḥ sahajaḥ,	(3) kṛtrimo	(3) kṛtrimaḥ/
(3) viruddho virodhayitā vā kṛtrimaḥ/19/ [3]	(1) bhūmyanantara iti/	(1) svabhūmyanantara iti
c. arivijigīṣvor bhūmya-nantaraḥ saṃhatāsaṃ-hatayor anugrahasa-martho nigrahe cāsaṃ-hatayor madhyamaḥ /21/ [4]	madhyamo 'nayor arivijigīṣvor asaṅ-gatayor nigrahasamar-thaḥ/	madhyamaḥ/ anayor arivijigīṣvor asaṃhatayor nigrahasamarthaḥ na saṃhatayor
d. arivijigīṣumadhyānāṃ bahiḥ prakṛtibhyo balavattaraḥ saṃhat-āsaṃhatānām ariviji-gīṣumadhyamānām anugrahasamartho nigrahe cāsaṃhatānām udāsīnaḥ/22/ [5]	udāsīno 'rivijigīṣu-madhyamānām asaṃ-hatānām/	udāsīnaḥ, arivijigīṣu-madhyamānāṃ asaṃhatānāṃ nigrahasamarthaḥ, na tu saṃhatānām/ •

14. *The Sixfold Policy* (Schlingloff 18)

Arth. 7.1	*Bhār.* 7.160	*Medh.* 7.160
a.(1) tatra paṇabandhaḥ saṃdhiḥ/6/	(1) atra hiraṇyādini-bandhana ubhayā-nugrahārthaḥ sandhiḥ/	(1) tatra hiraṇyādidā-nobhayānugra-hārthaḥ sandhis
(2) apakāro vigrahaḥ/7/	(2) tadviparīto vigrahaḥ/	(2) tadviparīto vigrahaḥ/
(3) upekṣaṇam āsanam/8/	(4) ekatarābhyuccayo yānam/	(4) ekāntatāgamanaṃ [6] yānam

---

[1] Mand., Ghar. *vijyeṣye.*

[2] Cf. *KN* 8.6: *sampannas tu prakṛtibhir mahotsāhaḥ kṛtaśramaḥ/ jetum eṣaṇaśīlaś ca vijigīṣur iti smṛtaḥ//* *NV* 29.23: *rājātmadaivadravyaprakṛti-sampanno nayavikramayor adhiṣṭhānaṃ vijigīṣuḥ/.*

[3] Cf. *NV* 29.33-4: *samābhijanaḥ sahajaśatruḥ/ virādho virādhayita vā kṛtrmaḥ śatruḥ/.*

[4] Cf. *KN* 8.18: *areś ca vijigīṣoś ca madhyamo bhūmyanantaraḥ/ anugrahe saṃhatayor vyastayor nigrahe prabhuḥ//* and *NV* 29.22.

[5] Cf. *KN* 8.19: *maṇḍalād bahir eteṣām udāsīno balādhikaḥ/ anugrahe saṃhatānām vyastānāṃ ca vadhe prabhuḥ//* and *NV* 29.21: *agrataḥ pṛṣṭhataḥ koṇe vā sannikṛṣṭaṃ vā maṇḍale sthito madhyamādīnāṃ vigrahitānāṃ nigrahe saṃhitānām anugrahe samartho 'pi kena cit kāraṇenānyasmin bhūpau viji-gīṣumāṇe ya udāste sa udāsīnaḥ/* [6] Mand., Ghar. *ekāntata 'py ucyate.*

(4) abhyuccayo yānam/9/

(5) parārpaṇa
saṃśrayaḥ/10/ [1]

(6) saṃdhivigrahopādānaṃ
dvaidhībhāvaḥ/11/ iti
ṣaḍguṇāḥ/12/

(3) upekṣaṇam
āsanam/

(6) sandhivigrahe
(lacuna)

(5) rpaṇaṃ saṃśrayaḥ

etān ṣaṅguṇāṃś
cintayet sadā/

(3) upekṣāyām āsanam/

(6) sandhivigrahopādā-
naṃ dvaidhībhāvaḥ/

(5) parasyātmārpaṇaṃ
saṃśrayaḥ/
ete ṣaḍguṇāḥ/

b. teṣāṃ yasmin vā guṇe
sthitaḥ paśyet 'ihasthaḥ
śakṣyāmi durgasetukar-
mavaṇikpathaśūnyani-
veśakhanidravya-
hastivanakarmāṇy
ātmanaḥ pravartayi-
tum, parasya caitāni
karmāṇy upahantum'
iti tam ātiṣṭhet/20/

eteṣāṃ ṣaṇṇāṃ yasmin
guṇe vyavasthito
manyetāhaṃ śakṣyāmi
durgaṃ kārayituṃ
hastino bandhayituṃ
khaniṃ khānayituṃ
vaṇik (lacuna) rayituṃ
kaśīn prayojayituṃ
dāruvanaṃ chedayituṃ
adeyamātrāṇi ca kṣetrā-
ṇi bandhayitum ity
evam ādīni/ parasya ca
vyāhantuṃ vṛddhivi-
ghātārthaṃ tadguṇaṃ
upeyāt/

eteṣāṃ yasmin guṇe
'vasthito manyetāhaṃ
śakṣyāmi durgaṃ
kārayituṃ, hastinīr
bandhayituṃ, khanīḥ
khanayituṃ, vaṇik-
pathaṃ prayojayituṃ,
jatuvanaṃ chedayituṃ,
adevamātṛkadeśe
kṣetrāṇi bandhayitum
ity evam ādīni, parasya
vittāni vyāhartuṃ,
buddhivighātārthaṃ
guṇam upeyāt/

15. *Waiting or Marching after Making War or Peace*
(Schlingloff 13)

Arth. 7.4

a. atisaṃdhānakāmayor [2]
arivijigīṣvor [3] upahan-
tum aśaktayor vigṛ-
hyāsanaṃ saṃdhāya
vā/4/

b.(1) yadā vā paśyet 'sva-
daṇḍair mitrāṭavī
daṇḍair vā samaṃ jyā-
yāṃsaṃ vā karśayitum
utsahe' iti tadā kṛtabā-
hyābhyantarakṛtyo
vigṛhyāsīta/5/

Bhār. 7.161

param atisandhātu-
kāmayor arivijigīṣvor
upagantum aśaktayoḥ
sandhāyāsanaṃ vgṛhya
vā

tatra yadā paśyet
svabalenotsahe paraṃ
karśayitum

Medh. 7.164

svayaṃ vigrahasya
kālaḥ yad āvaśyaṃ
svabalenotsahate
paraṃ karśayitum

---

[1] Cf. *NV* 29.43-8: *paṇabandhaḥ sandhiḥ/ aparādho* (Jolly: *apakāro*) *vigrahaḥ/ abhyudayo* (Jolly: *abhyuccayo*) *yānam/ upekṣaṇam āsanam/ para-syātmārpaṇaṃ saṃśrayaḥ/ ekena saha sandhāyānyena saha vigrahakaraṇam ekenaiva śatrau sandhānapūrvaṃ vigraho dvaidhībhāvaḥ/* Also Utpala on Varāhamihira, *Yogayātrā* 13.4 (Schlingloff: P.V. Kane, *ABI* 28, 1947, p. 137 n. 2): *Cāṇikya āha/ parārpaṇaṃ saṃśrayaḥ/*
[2] Kangle (on *Arth.* 7.4.3-4): "GMT *upekṣaṇam iti saṃdhāna-*, [em. Meyer]." Bhār. supports Meyer's emendation against the MSS.
[3] Kangle: "G₁T *-kāmayor api viji-*". Bhār. agrees with Kangle's text.

(2) yadā vā paśyet 'utsā-hayuktā me prakṛtayaḥ saṃhatā vivṛddhāḥ svakarmāṇy [1] avyāhatāś cariṣyanti parasya vā karmāṇy upahaniṣyanti' iti tadā vigṛhyāsīta/6/	utsāhaya uktāś ca me prakṛtayaḥ saṃhatā vivṛddhāś ca svakarmaṇy avyāhatāś cariṣyanti/	utsāhayuktaḥ, prakṛt-ayaḥ saṃhatā vivṛd-dhāś ca svakarma-kṛṣyādiphalasaṃpan-nāḥ parasyaitāny apahariṣyanti karmāṇi,
(3) yadā vā paśyet 'para-syāparitāḥ kṣīṇā lubdāḥ svacakra-stenāṭavīvyathitā vā prakṛtayaḥ svayam upajāpena vā mām eṣyanti; . . .' iti para-vṛddhipratighātārthaṃ pratāpārthaṃ ca vigṛhyāsīta/7/	parasya vā prakṛtayo lubdhāḥ kṣīṇāś ca/ yata upajāpena śakyās tā amī kartum ity evam ādi/ tadā vigṛhyāsīta/	kṣīṇalabdhaprakṛtiḥ paraḥ, śakyās tat-prakṛtaya upajāpenāt-mīyāḥ karttuṃ, sa svayaṃ vigrahasya kālaḥ/
c. vigṛhyāsanahetu-prātilomye [2] saṃdhā-yāsīta/13/	vigṛhyāsanahetvābhāve sandhāyāsīta/	
d.(1) vigṛhyāsanahetubhir abhyuccitaḥ sarvasaṃ-dohavarjaṃ vigṛhya yāyāt/14/	parasmād abhyutthitaḥ sarvasandehavarjaṃ svarāṣṭre kṛtaprativi-dhāno vigṛhya yāyāt/	
(2) yadā vā paśyet 'vyasanī paraḥ; prakṛtivyasanaṃ vā 'sya śeṣaprakṛtibhir apratikāryam; sva-cakrapīḍitā viraktā vā 'sya prakṛtayaḥ karśitā nirutsāhāḥ parasparād vā bhinnāḥ śakyā lobhayitum; agnyudakavyādhimara-kadurbhikṣanimittam kṣīṇayugyapuruṣani-cayarakṣāvidhānaḥ paraḥ' iti tadā vigṛhya yāyāt/15/	vyasane vā parasya pratikṣaye prakṛtikope vā/	
(3) yadā vā paśyet 'mitram ākrandaś ca me śūra-vṛddhānuraktaprakṛtiḥ, viparītaprakṛtiḥ paraḥ pārṣṇigrāhaś cāsāraś ca,	ākrandāsārabalād vā/	

---

[1] Kangle: "G₂MT *svakarmaṇi* (for *svakarmāṇi*)". Bhār. agrees with G₂MT against Kangle's text.

[2] Kangle: "G₁ -*sananetuprāti*-, T -*sane tu prāti*-". Bhār. agrees with Kangle's text.

śakṣyāmi mitreṇāsāram
ākrandena pārṣṇi-
grāhaṃ vā vigṛhya
yātum' iti tadā vigṛhya
yāyāt/16/

e. viparyaye saṃdhāya vigṛhyayānahetvābhāve
   yāyāt/18/   tu pārṣṇigrāhaṃ
           sandhāya yāyāt/

f. yadā vā paśyet 'na sambhūya vā yātra-
   śakyam ekena yātum phalāṃśakṛtasaṃvitka
   avaśyaṃ ca yātavyam' ity evam ādi samartho
   iti tadā samahīnajyā- vā tv ariṃ pārṣṇi-
   yobhiḥ sāmavāyikaiḥ grāhaṃ ca yugapad
   sambhūya yāyāt, vigṛhya yāyāt/
   ekatra nirdiṣṭenāṃśena,
   anekatrānirdiṣṭenāṃ-
   śena/19/

16. *The Four Types of Deserting and Returning Vassals*
(Schlingloff 12)

  Arth. 7.6   *Medh.* 7.186

  tasyāṃ gatāgataś caturvidhaḥ— sa caturvidhaḥ
a.(1) kāraṇād gatāgato,   kāraṇād gatas tato
 (2) viparītaḥ,   viparīta
 (3) kāraṇād gato 'karaṇād āgato 'kāraṇād āgato
 (4) viparītaś ceti/23/

b.(1) svāmino doṣeṇa gato guṇenāgataḥ yathā doṣeṇa gataḥ punar āgato
  parasya guṇena gato doṣeṇāgata
  iti kāraṇād gatāgataḥ saṃdheyaḥ
  /24/

 (2) svadoṣeṇa gatāgato guṇam ubhayoḥ guṇam ubhayoḥ parityajya/
  parityajya akāraṇād gatāgataḥ 'kāraṇenāgata iti yaḥ sa tyājyo
  calabuddhir asaṃdheyaḥ/25/ laghubuddhitvād yatkiṃcitkārīti/
           punar asya pratyayas tu na kāryaḥ/

 (3) svāmino doṣeṇa gataḥ parasmāt kāraṇād gataḥ 'kāraṇād āgataḥ [1]
  svadoṣeṇāgata iti kāraṇād gato yathā svāmidoṣeṇa gataḥ parasmāt [2]
  'kāraṇād āgataḥ tarkayitavyaḥ svadoṣeṇa gata iti satkarttavyo yadi
  'paraprayuktaḥ svena vā doṣeṇā- saṅgitvād āgatas tato grāhyaḥ/
  pakartukāmaḥ, parasyocchettāram atha paraprayuktas tena vā doṣeṇā-
  amitraṃ me jñātvā pratighāta- pakarttukāma iti tato neti/
  bhayād āgataḥ, paraṃ vā mām
  ucchettukāmaṃ parityajyānṛśaṃ-
  syād āgataḥ' iti/26/
  jñātvā kalyāṇabuddhim pūjayed,

---

[1] Mand. om. *na kāryaḥ*; Ghar. *pratyayas tu kāraṇād gataḥ kāraṇāgataḥ*
(v.l. *kāraṇa āgataḥ*).
[2] Mand. *parastāt*.

anyathābuddhim apakṛṣṭaṃ
vāsayet/27/

(4) svadoṣeṇa gataḥ paradoṣeṇāgata
ity akāraṇād gataḥ kāraṇād āgataḥ
tarkayitavyaḥ 'chidraṃ me pūra-
yiṣyati uchito 'yam asya vāsaḥ,
paratrāsya jano na ramate, mitrair
me saṃhitaḥ, śatrubhir vigṛhītaḥ,
lubdhakrūrād āvignaḥ śatrusaṃhi-
tād vā parasmāt' iti/28/ jñātvā
yathābuddhy avasthāpayitavyaḥ
/29/

17. *Marching Order* [1] (Schilngloff 6)

Arth. 10.2	Bhār. 7.187	Medh. 7.187
purastān nāyakaḥ, madhye kalatraṃ svāmī ca, pārśvayor aśvā bāhūtsāraḥ, cakrānteṣu hastinaḥ prasāra-vṛddhir vā, paścāt senāpatir yāyāt [2] niviśeta/4/	purastān nāyakaḥ paścāt senāpatiḥ svāmī ca madhye pārśvayor hastinaḥ tato 'śvā ity eṣa sāṃ-grāmiko yānavidhiḥ/	purastād balādhyakṣo madhye rājā paścāt senāpatiḥ, pārśvayor hastinas teṣāṃ samīpe 'śvās tataḥ padātaya ity eṣa sarvataḥ samavāyo daṇḍavyūho 'tiryag bhavati/

18. *Safety of the King in Battle* [3] (Schlingloff 2)

Arth. 10.5	Medh. 7.191
dve śate dhanuṣāṃ gatvā rājā tiṣṭhet pratigrahe/ [4] bhinnasaṃghātanaṃ tasmān [5] na yudhyetāpratigrahaḥ//58//	samānatantreṇoktam/ dve śate dhanuṣāṃ gatvā rājā tiṣṭhet pratigrahaḥ bhinnasaṃghātanārthaṃ tu na yudhyetāpratigrahaḥ//

---

[1] Cf. *KN* 19.45-7: *nāyakaḥ purato yāyāt pravīrapuruṣāvṛtaḥ/ madhye kalatraṃ svāmī ca kośaḥ phalgu ca yad balam// pārśvayor ubhayor aśvā aśvānāṃ pārśvayo rathāḥ/ rathānāṃ pārśvayor nāgā nāgānāṃ cāṭavībalam// paścāt senāpatiḥ sarvaṃ puraskṛtya kṛtī svayam/ yāyāt sannaddhasainyaughaḥ khinnān āśvāsayañ chanaiḥ//* Also Caṇḍeśvara, perhaps based on Medhātithi (*Rājanīti-Ratnākara*, ed. K. P. Jayaswal, Calcutta 1924, p. 39—Schlingloff): *vyūhamadhye padmavyūhastho rāj agre balādhyakṣaḥ vyūhapaścāt senāniti tatpārśvayor hastinaḥ tatsamīpe vyūhamadhye 'śvāḥ/ tatsamīpe vyūhamadhye padātayaḥ/*

[2] Kangle: "GMT read *paścāt senāpatir yāyāt niveśeta* after *saṃbhāvyā vā gatiḥ* (s. 12), (Cs)".

[3] For parallels see J. J. Meyer, *op. cit.*, p. 87.

[4] Kangle: "GMT *tiṣṭhet pratigrahaḥ*, (Cn)". GMT and Medh. agree with Śaṅkarārya on *KN* 20.15, -*grahaḥ*.

[5] Śaṅkarārya *loc. cit.*: *bhinnasaṃdhāraṇas tasmān.*

19. *Human Effort and Fate* [1] (Schlingloff 8)

Arth. 6.2

mānuṣaṃ nayāpanayau, daivam ayānayau/6/ daivamānuṣaṃ hi karma lokaṃ yāpayati [2]/7/

Medh. 7.205

samānatantre 'pi 'daivaṃ nayānayayor mānuṣaṃ karma lokaṃ pālayati' iti/

20. *The Effects of Poison on Birds* [3] (Schlingloff 4)

Arth. 1.20

śukaḥ sārikā bhṛṅgarājo vā sarpa-viṣaśaṅkāyāṃ krośati/7/ krauñco viṣābhyāśe mādyati, glāyati jīvaṃ-jīvakaḥ, mriyate mattakokilaḥ, cakorasyākṣiṇī virajyete/8/

Medh. 7.217

darśanena mriyate yatra kokilaḥ, glāyati jīvaṃjīvakaḥ, cakorasya-kṣiṇī vinaśyato viṣaṃ pradarśyāpi, bhavati muṣkasyāvagrahaḥ sveda ity ādi/

21. *Audiences* (Schlingloff 1)

Arth. 1.19

sarvam ātyayikaṃ kāryaṃ śṛṇuyān nātipātayet/ kṛcchrasādhyam atikrāntam asādhyaṃ vāpi jāyate [4]/30//

Medh. 7.223

yathā cotpāditaṃ kāryaṃ saṃpaśyen no bhitāpayet/ kṛcchrasādhyam atikrāntam asādhyaṃ vāpi jāyate //

Schlingloff's observation that Medhātithi in the majority of cases supports Kangle's text against the variants survives the introduction of Bhāruci into the comparison. In some cases both commentators support one or other of the variants against Kangle's text,[5] in some cases Bhāruci alone supports the variants,[6] and in five cases the texts of Bhāruci and Medhātithi conflict, one agreeing with Kangle's readings while the other supports a variant reading, most of these to be explained as textual corruptions in one or other

---

[1] Cf. *NV* 29.3-5: *daivaṃ dharmādharmau/ mānuṣaṃ nayānayau/ daivaṃ mānuṣaṃ ca karma lokam yāpayati/*.

[2] Kangle: "G₁ *yāvati*, T *avati*". Shama Sastri *pāvati*. Jolly, *ZDMG 71*, p. 414: "Vielleicht ist *pālayati zu lesen, nach dem Zitat dieser Stelle Me(dhātithis) zu VII, 205."

[3] Cf. *KN* 7.11-13: *bhṛṅgarājaḥ śukaś caiva sārikā ceti pakṣiṇaḥ/ krośanti bhṛśam udvignā viṣapannagadarśanāt// cakorasya virajyete nayane viṣadar-śanāt/ suvyaktaṃ mādyati krauñco mriyate mattakokilaḥ// jīvañjīvasya ca glānir jāyate viṣadarśanāt/ teṣām anyatamenāpi samaśnīyāt parīkṣitam//* and (Schlingloff) Suśruta, *Kalpasthāna* 1.30-2: *bhinnārcis tīkṣṇadhūmaś ca na cirāc copaśāmyati/ cakorasyākṣivairāgyaṃ jāyate kṣipram eva tu// dṛṣṭvānnaṃ viṣasaṃsṛṣṭaṃ mriyante jīvajīvakāḥ/ kokilaḥ svaravaikṛtyaṃ krauñcas tu madam ṛcchati// hṛṣyen mayūra udvignaḥ krośataḥ śukasārike/ haṃsaḥ kṣveḍati cātyarthaṃ bhṛṅgarājas tu kūjati//*

[4] Kangle: "G₁ *vā vijāyate*, G₂ *vābhijāyate*, M *vā nijāyate*".

[5] Above, p. 138 fn. 2, p. 145 fn. 8, p. 148 fn. 1.

[6] Above, p. 139 fn. 4, p. 143 fn. 3, p. 145 fn. 3, p. 153 fn. 1.

of the commentators.[1] Schlingloff is also right in saying that while Medhātithi attests the reliability of the textual tradition of the *Arthaśāstra*, the opposite is the case for Medhātithi himself. Ganganatha Jha has said of his text, "As regards the readings of the *Bhāṣya*, it would be a sheer waste of time to even note the 'readings'. The MSS. are so hopelessly corrupt that those 'readings' would, in ninety cases out of a hundred, be a mere jumble of meaningless syllables." [2] Similar circumstances prevailed it seems, in the 14th century when a northern Indian king had a *jīrṇoddhāra* text made because the available manuscripts were faulty.[3] Schlingloff gives a list of readings which he considers certain to be scribal errors, but observes, "In many cases one can be in doubt whether one has before one a true variant or whether a scribal error has been subsequently improved to the degree that in its present form it has the appearance of a true variant." [4] It must remain to an editor of Medhātithi who takes the trouble to record the variants of many manuscripts, unrewarding as it may seem, to decide the readings at issue in the foregoing parallels.

The single Bhāruci manuscript contains several scribal errors, not to mention lacunae, but where there are parallels in the *Artha-śāstra* and Medhātithi, there need be no doubt as to the original wording. I list the readings which to me seem required or at least preferable; for the most part they are guaranteed by the agreement of the *Arthaśāstra* and Medhātithi against Bhāruci; in a few cases they are based upon partial agreement between Bhāruci and one or the other of the two and the requirements of grammar or sense.

Preferred Readings in Bhāruci

Example 1. Bhāruci 7.52
    a.   lacuna: -*m apreta*- (Derr.)
            pretatvaṃ: *pretatvaṃ kaupīnadarśanam* (Derr.)
            cārthasvapneṣu: *cārthaghneṣu* (Derr.)
    b.   *dyūte*: *dyūte tu*

---

[1] Above p. 142 fn. 3, p. 146 fn. 4, p. 147 fnn. 3, 6, p. 149 fn. 1.
[2] Jha (*Notes*), p. 1.
[3] According to Jha, text vol. 3, pp. i-ii; G. Bühler: *The Laws of Manu*, Introd., pp. cxxiv-cxxv.
[4] Schlingloff, p. 23, fn. 89. But in example 10 above (Schlingloff 7) -*opa-diśyate* is found both in Bhāruci and Medhātithi and must therefore remain against *Arthaśāstra -opadihyate* (obviously altered under the influence of *chāstrapadiśen* and *cāsyopadiśen*). In 7(2) and (3) above, *lubdha*- and *bhīta-vargaḥ* should change places and in 13.b(1) *prākṛtaḥ* should be omitted from Medhātithi.

    c.   *tadaiva jitadravyaḥ: tad eva jitadravyaṃ*
          tasyāpi: tasyāpi āmiṣaṃ (Derr.)
    d.   *śaktā: śakyā*
    e.   *strīmṛga-: strīmṛgayā-*
    f.   *vyāyāma-: vyāyāmaḥ* (Derr.)
          -vadhaḥ: -medaḥ- (Derr.)
          -jananena āsanaparicayaś: -jananaṃ (?) *grāmyajanapar-*
             icayaś

Example 2. Bhāruci 7.54

    suvigrahaḥ: (?) *svavagrahaḥ* (personal beauty a quality of
        the ideal king, but not minister)
    -prabhāvaguṇayuktaḥ: prabhāvayuktaḥ
    -ārogyayukta-: -ārogyasattvayuktaḥ
    cāpalahīno: cāpalahīno sampriyo
    lacuna: *-ṇāṃ akartety amātyasampat* /

Example 3. Bhāruci 7.54

    a.   lacuna: *dharmārthakāmabhayopadhābhiḥ* / *seyaṃ*
  b(1) *asāmantam: sāmantam* (Derr.)
(1)-(2) *pratyākhyāte: pratyākhyāne* (Derr.)
(3)-(4) *tatkṛtasamāgamopāyācoptapuruṣaḥ* (haplography): *tatkṛtasa-*
        māgamopāyeti pratyākhyāne kāmopadhāśuddhaḥ / *rājapra-*
        yuktā eva kecit puruṣāḥ pravādam āviṣkuryuḥ, kṛtasamayair
        amātyai rājā hanyata iti/ *upalabdha pravādaḥ purohitasyāp-*
        tapuruṣaḥ
   (4)   *rājāpatyeṣūtsāhayet: rājāmātyeṣūtsāhayet*

Example 4. Bhāruci 7.56

    svājīvya: svājīva
    paśalyaḥ śatruṣ (lacuna) *akṣī: paśavyaḥ śatrudveṣī*

Example 5. Bhāruci 7.56

    a.   *devāśramadyāvatāṃ: devatāśramavidyāvatāṃ*
  b-c. lacuna: *pravartanam*/ *pravṛttānām anuvṛttiḥ*/ *yac ca kośa-*
        -daṇḍoghāta-: daṇḍopaghāta-
    d.   the last three feet can be supplied from *Arth.* 13.5.24, but
        it is difficult to rectify metre and sense of the first. Medh.
        plainly corrupt.

Example 6. Bhāruci 7.70

    -tācitā: -citā
    dvādaśahastocchritena: dvādaśahastād ūrdhvam ucchritena

Example 7. Bhāruci 7.104

   (1)   *copacāre: copakāre*
       ma (lacuna) *taḥ:* (?) *prasabhābhimṛṣṭastrīkaḥ* (*Arth.*) or (?)
       prasabham abhipūjya svīkṛtaḥ (Medh.) which, however,
       appears corrupt.
       sarvasvahārita: sarvasvam āhāritaḥ

(2) *-bhūmi: -bhūmir*
-opanata-: -opanataḥ
(3) *taṭaryo vyasaṭ* (corrupt): *parikṣīṇaḥ kadaryo vyasanī bahvṛṇa*

Example 8. Bhāruci 7.147
a(1) *karmāram-: karmaṇāṃ āram-*

Example 10. Bhāruci 7.152
grāhayitavyam: (?) *grāhayitavyāḥ*

Example 11. Bhāruci 7.153
b(1) *Candrasenam: Bhadrasenam* (Derr.)
(2) *śayanāntargatam: śayanāntargataś* (Derr.)
putra-Kārūśam: putraḥ Kārūśaṃ (Derr. *Kārūṣam*)
(4) *Vairantaṃ: Vairantyaṃ*

Example 12. Bhāruci 7.154
a. lacuna: *pa-*
-vyañcanāḥ: -vyañjanāḥ
(1) *tad: tam*
pramāṇīkṛtya: pramāṇaṃ kṛtvā
paśy (lacuna) *am: paśyasi tat tadānīm evāśrayaṃ* (Derr.)
(2) *-samarthāyāja: samarthāyāṃ bhūmau*
kṛṣika (lacuna) *vastān: kṛṣikarmaphalāc ca sarvapravrajitānāṃ grāsācchādanāvasthān* (Derr.)
-pravra (lacuna) *rgaṃ: -pravrajitāś ca svaṃ svaṃ vargaṃ* (Derr.)
(4) *vaṇik*: omit
nagarābhyāśe: sa nagarābhyāśe
nidānam: (?) *agnidāhaṃ* (Derr.)
e. *śramiṇā-: śramaṇā-*

Example 13. Bhāruci 7.115
c. *asaṅgatayor: asaṃhatayor*

Example 14. Bhāruci 7.160
a(5)-(6) *-vigrahe* (lacuna) *rpaṇaṃ: -vigrahopādānaṃ dvaidhībhāvaḥ/ parārpaṇaṃ*
b. *vaṇik* (lacuna) *rayitum kaṣīn: vaṇikpathaṃ*
adeyamātrāṇi: adevamātṛkāṇi

Example 15. Bhāruci 7.161
a. *upagantum: upahantum*
b.(2) *utsāhaya uktāś: utsāhayuktāś*
(3) *tā amī* (corrupt): *tatprakṛtayaḥ ātmīyāḥ*
c. *-hetvābhāve: hetvabhāve*
d.(1) *abhyutthitaḥ: abhyuccitaḥ*
sarvasandeha: sarvasandoha
e.(2) *pratikṣaye*: (?) *prakṛtikṣaye*
-hetvābhāve: -hetvabhāve

I now consider the examples singly to recall Schlingloff's argument in greater detail and examine the bearing of Bhāruci upon it. —In example (1) the introduction of Bhāruci does not much change matters, and his text often stands in need of improvement from the other two. The passage deals with the four vices born of lust, which the *Arthaśāstra* gives, in order of increasing gravity, as hunting, gambling, women and drink, Manu differing in that he regards gambling as a more serious vice than indulgence in women. (These categories and exposition of them through discussion of their relative gravity are quite common in Sanskrit literature; see Schlingloff for a wealth of illustrations.) In their commentaries on Manu's text, Bhāruci and Medhātithi take these vices in pairs, giving arguments against the graver of the first two and in favor of the less grave, proceeding then to the second and third vices with negative and positive arguments, and so through the list. The *Arthaśāstra* also takes the vices in pairs, but the scheme is much more complex. The false argument is put into the mouth of one of Kauṭilya's opponents (Piśuna, Kauṇapadanta, Vātavyādhi) thus: 'of A and B, A is worse', followed by a negative argument for A and a positive argument for B; this Kauṭilya rejects, giving a negative argument for B, a positive for A, and so to the next pair. That we have here to deal with "a free, poetic reworking", scarcely "based on a set stock of arguments" [1] may freely be granted. That the author of the *Arthaśāstra* composed this passage by expanding the materials preserved in Bhāruci and Medhātithi, rather than the opposite, Schlingloff deduces from the fact that Medhātithi (and Bhāruci) cites the arguments of Kauṭilya's opponents, and "a commentary could scarcely base its exposition on arguments which the authority it quoted had rejected as false opinions".[2] This seems to me a mistaken view of the matter: for Kauṭilya does not contradict, he is simply not responsible for, the positive and negative arguments concerning these vices by his opponents; what he contradicts is their views as to the relative gravity of them. Thus Somadeva can with good conscience reproduce the argument of Kauṇapadanta against gambling (p. 136, fn. 1). We return to consider the more general argument, that commentators stick to their sources, at another point.

---

[1] Schlingloff, p. 33.
[2] Schlingloff, p. 34.

2
4, 7
In regard to the passages concerning the ideal minister (2), the ideal kingdom (4) and the four groups of seducible parties (7), Schlingloff says they "could be abbreviated citations from the *Kauṭilīya*, if Medhātithi had not used an order of ideas which is not found in the *Kauṭilīya*."[1] In the first of these three, Bhāruci's readings are closer to the *Arthaśāstra* than Medhātithi, with only one word (*suvigrahaḥ*, if indeed it corresponds to *svavagrahaḥ*) out of order. In the second Bhāruci is only slightly closer and does indeed alter the ordering, but the supposed difference from the order of ideas in the *Arthaśāstra* almost entirely disappears in the third of these passages. The juxtaposition of *bhīta-* and *lubdhavarga* in Medhātithi (7(2) and (3)) is clearly a scribal (or editorial) error as Jha's note and Bhāruci's text show. If in 7(I) it had appeared that Medhātithi was departing from the order of ideas in the *Kauṭilī-ya*, it can now be seen that he is expanding and altering his source, Bhāruci. —In considering the four tests of a minister's integrity Medhātithi seems to have supplied the description of the 'test of piety'

3
(3.b(I)) partly from that of the 'test of wealth' (3.b(2)), perhaps because his text of Bhāruci, who follows the *Arthaśāstra* quite closely, was defective. Schlingloff comments that Medhātithi agrees with the contents of the first three tests, but that in the 'test of fear' there is no similarity between the two, and since Bhāruci and Medhātithi here agree (so far as the former's damaged text permits us to decide), no new light is thrown on the problem. But the difference between the *Arthaśāstra* and Medhātithi has been exaggerated. The sense of the former is that the king feigns suspicion of conspiracy against them when his ministers gather at a party, and imprisons them. An agent previously 'imprisoned' approaches them singly, inviting them to join a plot to kill the king, insinuating that all the others are agreed. If the minister rejects the idea, he is loyal. This is a perfectly good plan, but not well-suited to its title: Bhāruci and Medhātithi give us a much more appropriately named 'test of fear', according to which the king has the rumor spread that a combination of ministers is plotting his death, and agents warn the ministers that the king will punish them when he hears the rumor; another agent urges them to take action, and those who refuse are proved 'pure by the test of fear'. In both of these a 'plot' against the king is the leading idea, and in both the

---

[1] Schlingloff, p. 26.

II

object of the 'plot' is to kill the king. That Kauṭilya, in the verses which follow, states that the *ācāryas* approve the four tests, but gives it as his own view that the "king must not make himself or the queen the target in determining the purity of ministers" [1] and thus proscribes the 'test of fear' set out, and that Medhātithi (and (Bhāruci) expresses a similar sentiment and thus contradicts himself,[2] is hardly proof that Medhātithi (or Bhāruci) drew from a work of one of these teachers, not the *Kauṭilīya*, as Schlingloff reasons. On the contrary, the fact that the contradiction is found in all three points in the other direction.[3]

Schlingloff regards the passage on the pacification of recently 5 conquered lands (5) as a short chapter with closing verse which the author of the *Kauṭilīya* has expanded. *Labdhapraśamana* is indeed the title of a *prakaraṇa* in the *Arthaśāstra*, but its appearance in Medhātithi is due to the word *labdhapraśamaṇāni* in Manu 8.56, in which form it occurs in Bhāruci and on which the Bhāruci and Medhātithi passages are glosses. As glosses it is hardly reasonable to expect an extended quotation from the *Arthaśāstra*. —Schlingloff believes that Medhātithi's description of the construction of the fort goes back to a technical work which has not come down to us: "Medhātithi quotes a passage lacking in the *Kauṭilīya* about a ditch around the fort (*dṛḍhapraṇālyā parikṛtam dhanur durgam*)." [4] In fact the 'ditch' is an error for Bhāruci's 'rampart' (*dṛḍhavapreṇa pariṣkṛtaṃ*), corresponding to the *vaprasya* of the *Arthaśāstra*.[5] 8 —The passage on the 'five-fold counsel' (8) is missing in Jha's text and was overlooked by Schlingloff. It shows an excellent agreement

---

[1] *Arth.* 1.10.17: *na tv eva kuryād ātmānaṃ devīṃ vā lakṣyam īśvaraḥ| śaucahetor amātyānām etat Kauṭilyadarśanam||* and generally vss. 16-20.

[2] Medh. 7.54: *samuditaparīkṣā ca yoktā rājaviṣayā rājāmātyeṣūtsāhanam iti, sā na yukteti manyante. eṣa eva hi śuddhibhaved amātyānām. tasmād anyā kācit strī sādhvī prayojyā anyaś ca vināśaviṣaya udāhāryaḥ.* Cf. Bhār., *loc. cit.*: *iyaṃ parīkṣā rājaviṣayād anyatra. na tu pūrvavat. itarathā hy etad eva buddhibhede hetuḥ syāt.*

[3] Śaṅkarārya on *KN* 4.26 reproduces the passage, but not the disclaimer; but it would be absurd to deduce that he was not drawing from the *Arthśāstra.*

[4] Schlingloff, p. 25.

[5] Schlingloff rightly observes that *dhanurdurga* in Medh. represents not 'bow fort' but *dhānvanadurga*, 'desert fort', or rather, *dhanvadurga*, the word which is found in Bhāruci's text of Manu 7.70. Bhāruci, however, did not gloss *dhanvadurgaṃ*, and the corresponding word has been wrongly inserted into Medh. (. . . *dhanurdurgam mahīdurgam aghādeṇāśrayaṇīyena codakena pariveṣṭitam abdurgam*). Naturally it is the water fort, not the earth fort, that is surrounded by water.

between the *Arthaśāstra* and Bhāruci, Medhātithi abbreviating his
9 source. —The betrayal of counsel by animals (9) is, as Schlingloff
says, a well-known folklore motif, and Medhātithi (failing Bhāruci
here) could have got it most anywhere. —Bhāruci's text is con-
siderably better than his colleague's in the extract on the training
10 of princes (10), and it becomes clear that Medhātithi has both
inserted new material into a text from Bhāruci (a) and reworded
another (b); the order of ideas in the first part is of course still the
opposite of that in the *Arthaśāstra*. —With regard to the assassina-
11 tion of kings (11), after laying it down that a queen should be
inspected by an old woman before the king makes love to her, and
giving examples from legend of kings killed in the harem by their
queens or through their agency (the passage is abbreviated and
corrupt in Bhāruci and Medhātithi), the *Arthaśāstra* instructs the
king to prohibit contact with various undesirable females including
slave girls from outside the harem. Schlingloff observes, "In the
Kauṭilīya this prohibition is laid on the queen herself, while in
Medhātithi [and Bhāruci] we find this addition, that it applies to
the concubines of the harem [das weibliche Personal des Frauen-
hauses]".[1] The *Arthaśāstra* passage however makes no mention of
the "queen herself", and an Indian king is likely to have several
queens, *devī*, from whom *the* queen might be differentiated with
the term *mahādevī*.[2] But the objection surely must be that in sup-
plying the prohibition of the *Arthaśāstra*'s cryptic text with an
object Bhāruci alters the presumed intention of his original only
slightly by naming the concubines, with whom the king might be
in the same danger.
12   The Bhāruci and Medhātithi texts on the king's spies (12), which
are practically identical, correspond to parts of two chapters in the
Arthaśāstra, including two of the concluding verses of the second
of these. Manu's verse (7.154) requires the king to reflect on the
'eight-fold business', the 'group of five', on good will and enmity,
and the conduct of the *maṇḍala*. Bhāruci (and, quoting him,
Medhātithi) has come up with three different explanations of the
aṣṭavidham karma and the various commentators offer two for the
pañcavargam. Here we have Bhāruci's version: the 'group of five'
consists of five types of agents, which according to the *Arthaśāstra*

---

[1] Schlingloff, p. 29.
[2] Kangle's translation presumes that several queens were intended.

are those with fixed dwellings, dealt with in chapter 11, (a). Our Manu-commentators then go on, however, to describe roving spies, *sattrins*, (b) and contain other material with correspondences in *Arthaśāstra* 1.12, (c-e). Schlingloff asks why the passage about the *sattrins* and so forth has been cited (b-e), rather than, with Kullūka and Govindarāja, the definition of the five agents with permanent dwellings alone (a), as called for by the *pañcavarga* of Manu's text. "The most natural explanation for this is that Medhātithi has quoted in full, including the closing verse, the chapter dealing with agents in his *arthaśāstra*-source and that the author of the *Kauṭilīya* has incorporated just this *arthaśāstra*-source into his work and has expanded the portion in question."[1] But this in no way solves the problem, which is, why did Medhātithi, or rather, Bhāruci go beyond this 'group of five' in his comment? —he was not bound to quote his source in full.

13   In commenting on the following verse in Manu, in which the four elements of the circle of states are named (conqueror, enemy, middle and neutral kings), Bhāruci and, following him, Medhātithi have passages corresponding in condensed form to the definition in the *Arthaśāstra* of the twelve elements of the circle (13). (Schlingloff does not cite these passages.) —In the next example, the six-fold

14   policy (14), Bhāruci takes us slightly closer to the wording of the *Arthaśāstra*, though the order of the six is altered (as it is in Soma-deva). Schlingloff sees striking differences in wording and content in part (b), and believes that a bit of text has been interpolated between the first and second passages in the *Kauṭilīya*, rather than supposing that Medhātithi (Bhāruci) here condenses his source.[2] —Medhātithi is capable of condensing and altering *his* source,

15   Bhāruci, as we see in the extract on waiting or marching after making war or peace (15). The example is instructive. What Schlingloff says is this: "We find (here) differences in content next to verbal correspondences; above all, the discussion in the *Kauṭilīya* on waiting after making war (*vigṛhyāsīta*) is particular, while in Medhātithi it refers in general to the three times for making war (*vigrahasya kālaḥ*)."[3] This is true, but Bhāruci changes the picture

---

[1] Schlingloff, p. 30.

[2] Schlingloff points out that the list of undertakings goes back to Medhā-tithi's (and Bhāruci's) gloss, one of three, on the *aṣṭavidhaṃ karma* of Manu 7.154, a similar list being found in *KN* 5.77.

[3] Schlingloff, p. 28.

enormously. His comment is on Manu 7.161 which, like its immediate predecessor, names the six policies; Bhāruci explains waiting after making war, waiting after making peace, marching after making war, marching after making peace and confederacy in a manner which we can recognize as an abridgement of the *Arthaśāstra* discussion, with a verbal correspondence which is respectably close and which at one point offers the only textual support to an emendation, due to Meyer, in the *Arthaśāstra* (a: see p. 152 fn. 2). Medhātithi gives a briefer comment on Manu 7.161, but draws upon Bhāruci's comment elsewhere, namely in dealing with Manu 7.164 on war in season (*kāle*). The example amply illustrates the effect of a change of context, and the willingness of Medhātithi to condense and alter the sense of his source here demonstrated must throw doubt on the assumption on which Schlingloff's entire argument rests.

16   The next example (16) is puzzling; the Medhātithi passage, as Schlingloff remarks, is very corrupt and defective, and it is the only longish correspondence between the *Arthaśāstra* and Medhā-tithi which is not found in our text of Bhāruci. It deals with the four types of deserting and returning vassals: those who desert and return for good reason (1), those who do so without good reason (2), those who desert for good reason and return without good reason (3), and those who desert without good reason and return for good reason (4). The *Arthaśāstra* after naming these four classes then describes these in greater detail: In the first case the vassal is to be taken back, in the second, rejected, in the third and fourth cases the decision must depend upon the ground of his defection and return. Schlingloff notes that in the third case, of the three grounds considered, the second (which Schlingloff regards as not very logical, and which Meyer proposed to change [1]) is missing from Medhātithi. "Also, the differences in wording are here so character-istic that Medhātithi cannot himself have simplified the text, but must have used another source." [2] I do not see how so definite a conclusion can be reached about a text so obviously a victim of the *jīrṇoddhāra*, a text which announces four classes and then only names three, and describes in detail only three—or perhaps two. [3]

---

[1] See Kangle, Part 2, on *Arth.* 7.6.26.
[2] Schlingloff, p. 27. I abbreviate his discussion considerably.
[3] I give the text as arranged and punctuated in Schlingloff, but it may be asked whether in b(1) Medhātithi's *yathā doṣeṇa gataḥ punar āgato* does not correspond to the Arthaśāstra's *svadoṣeṇa gatāgato* of b(2).

But even granting that Medhātithi's original wording in b (3) was roughly as we have it, the differences noted rest on the questionable assumption that a commentator takes few liberties with the authority he uses.

17   In dealing with marching order (17) we see Medhātithi (if his text is here correct) altering the wording and order of ideas of his original. Schlingloff remarks that in the *Arthaśāstra* the cavalry are on the sides, the elephants on the ends of the army, while in Medhātithi (and Bhāruci) the elephants are on the sides and the cavalry next to them. It is by no means certain, however, what the *Arthaśāstra* means here, or what the correct reading is,[1] and the *Kāmandakīya* puts all four 'arms' of the army on the sides, albeit in different order. —Of the passages concerning the king's

18
21   safety in battle (18) and audiences (21), neither of them found in Bhāruci, Schlingloff rightly remarks, "Self-contained didactic verses need not have been drafted by the author of the *Kauṭilīya* nor have been taken from it by Medhātithi." [2] —The remaining

19   examples, concerning human effort and fate (19) and the effects
20   of poison on birds (20), are also absent from Bhāruci, and are of a sort such that Medhātithi could have found them practically anywhere.

Conclusions

It is plain that by and large Schlingloff's conclusions concerning Medhātithi apply rather to Bhāruci, for it is unreasonable to suppose that Medhātithi and his predecessor got substantially identical material independently of each other. I have given in my commentary on the parallel passages reasons to doubt the assumption that commentators usually follow the wording and sense of the authorities they quote; I will not belabor the issue, but merely observe that the principle is not a universally recognized

---

[1] See Kangle's long note, trans., *Arthaśāstra* 10.2.4. *Cakrānteṣu* is taken as "rear ends of the army" on the authority of two commentaries, one of them Ganapati Sastri's; *prasāravṛddhi* is carried out by horses (10.4.13); *sarvataḥ*, coming after *prasāravṛddhir vā* is hived off and put in the following *sūtra* because it does not accord with the sense adopted for *cakrānteṣu*; *paścāt . . . niveśeta* is inserted from 10.2.12. In 10.2.5 (*sarvataḥ vanājīvaḥ prasāra*), the first word may correspond to the *tato* of Bhāruci, the second to the *aṭavibalam* of *KN* 19.46 (cf. Meyer's trans.). But the passage defies translation.

[2] Schlingloff, p. 25.

one [1]. It might be argued that as Medhātithi does not greatly alter Bhāruci (apart from one striking example), the same must hold for Bhāruci and his source. But Medhātithi was taking over material tailor-made for his purposes while Bhāruci drew upon a different work, outside his *śāstra*, which he therefore had to adapt to his peculiar needs.

I do not wish to give the impression that I regard Schlingloff's well-argued thesis disproved. It may be the case that Bhāruci drew upon a text which was a predecessor of the *Arthaśāstra* or related to it in some other way, rather than the *Arthaśāstra* itself. When heavenly bodies follow trajectories which do not accord with existing theories, it may be necessary to posit the existence of an unseen planet or star; but it would be unwise to do so without a clear necessity. I entirely agree with Schlingloff when he says, "We must stand firm against the temptation to see in the *Arthaśāstra* the conception of a single great statesman." [2] But we must also be careful not to 'discover' the existence of imaginary lost texts. It is much simpler to regard the *Arthaśāstra* as Bhāruci's source though not his only source in Book 7, for he also quotes some ślokas, reproduced by Medhātithi, of the 'Auśanasas'. [3]

Of those *Arthaśāstra*-Medhātithi correspondences which Bhāruci lacks, only one, that concerning deserting and returning vassals, is of some length and importance. It is possible that a corresponding passage has dropped out of Bhāruci; the discovery of more manuscripts of Bhāruci could help us decide. On the whole, in any case, the evidence that Medhātithi knew the *Kauṭilīya* directly is slight, while there is other evidence that in addition to Bhāruci he had another *arthaśāstra* source. His references—not found in Bhāruci— to "those conversant with the books of Cāṇakya and others", [4]

---

[1] Cf. Derrett's conclusions: "Bhār. obviously used a version of Kauṭ. anterior to those known to some extent from records of surviving manuscript material of Kauṭilya himself. His numerous deviations from Kauṭ. suit his purpose as a commentator on Manu; but one striking instance of a real distortion of Kauṭ. to suit the obviously different scheme of Manu (the rāja-vyasanas) shows that he was master of his material . . . In numerous cases he merely alludes to Kauṭ. or borrows his vocabulary without copying the passage verbatim, and this too helps us to recognize where he is deliberately incorporating Kauṭ. as distinct from merely utilising him and his science" (p. 140).

[2] Schlingloff, p. 37.

[3] 7.154 in both commentators.

[4] 7.43: *Cāṇakyādividbhyaḥ.*

to "the science of polity, composed by the Auśanasas and others", [1] to a work, *Bārhaspatya*, dealing with economics [2] do not take us very far, nor does the teasing ascription of two non-Bhāruci passages to "a similar work" (*samānatantra*). [3] All the greater, then, is the importance of the two passages Medhātithi quotes from an *Adhyakṣapracāra*, whose title is identical with that of *Arthaśāstra*, Book 2. [4] Here, I believe, we are entitled to look for a predecessor to the *Arthaśāstra*, a work on which the composer of the *Arthaśāstra* may have drawn. [5] In this far I am prepared to concede Schlingloff his point. [6]

---

[1] 7.2: *arthaśāstram Auśanasādipraṇītam*.

[2] 7.42: *Bārhaspatyena—vārtā* (sic: *vārttā*); 9.326: *Bārhaspatye vārtā* (sic) *samupadiṣṭā*.

[3] Above, examples 18, 19.

[4] Medh. 7.61 and 7.81, cited below, ch. 7.

[5] Schlingloff remarks that the very titles of chapters in the *Arthaśāstra* appear to be traditional, with examples, p. 31, fn. 109.

[6] Since writing the above Professor Derrett has kindly given me additional references from his MSS. of Bhāruci: Bhār. 8.123 cites *śāstrāntara*, probably *Arth.* 4.13.4-5; at 7.68 Bhār. "quotes something quoted by Kauṭ."; Uśanas is named at 8.51 and the text quoted becomes a spurious Manu 8.51 *bis* via Medh.

CHAPTER SEVEN

THE AGES OF THE *ARTHAŚĀSTRA*

What Does It Mean?

A statistical study of a parallel work, Vātsyāyana's *Kāmasūtra*, will shed light on the nature of the result for our text, since Vātsyāyana is much more candid about his sources than is the *Arthaśāstra*.

Taking the seven books of the *Kāmasūtra*, omitting verses and removing from Book 1 the first chapter with its table of contents, we find for our five key words the distributions set out in Appendix Table 8. Books 4 and 7, with 920 and 860 words, are rather short for testing; however it is not they, but the longest books (Books 2 and 6) which contribute most to the great variability between the seven books which is shown below, Table 7.1.

TABLE 7.1

Chi-square results for seven books of Vātsyāyana's *Kāmasūtra*.

	χ^2	d.f.
eva	18.09**	6
evam	—	—
ca	54.51***	18
tatra	23.21***	6
vā	18.64**	6

I will not burden the reader with the results of a comparison of each of the 21 different pairs of books; suffice it to state that a pattern emerged which showed that Books 2 and 6, and perhaps Book 7 (though this last was rather short for testing), proved not only distinct from the remaining books but from each other. This leaves us with a homogeneous core consisting of Books 1, 3, 4 and 5. (see Table 7.2).

These results are corroborated by the compound-length test. Compound-length distributions for the prose portions of the seven books of the *Kāmasūtra* are given in Appendix Table 9; in Table 7.3 the chi-square results may be found.

TABLE 7.2

Chi-square results in Vātsyāyana's *Kāmasūtra*. Core = Bks. 1, 3, 4, 5

	Core	Core & 2	Core & 6	Core & 7	2 & 6	2 & 7	6 & 7
eva							
χ^2	5.22	8.29	9.85*	7.61	9.56**	.04	6.92**
d.f.	3	4	4	4	1	1	1
evam							
χ^2	—	—	—	—	—	—	—
d.f.	—	—	—	—	—	—	—
ca							
χ^2	9.74	36.00***	23.78*	28.63**	1.95	2.27	5.70
d.f.	9	12	12	12	3	2	2
tatra							
χ^2	4.21	15.82**	4.35	6.96	7.38**	7.96**	—
d.f.	3	4	4	4	1	1	—
vā							
χ^2	4.21	5.71	15.49**	5.71	14.51***	.00	7.04*
d.f.	3	4	4	4	2	1	2

TABLE 7.3

Chi-square results for compound-length distributions in Vātsyāyana's
Kāmasūtra

	χ^2	d.f.
All books	67.35***	18
Core (Bks. 1, 3, 4, 5)	20.74*	9
Core and 2	29.61**	12
Core and 6	36.03***	12
Core and 7	37.62***	12
2 and 6	3.69	3
2 and 7	23.82***	3
6 and 7	32.45***	3

The chi-square result for the homogeneous core (Books 1, 3, 4, 5)
which I proposed above is rather high, bordering on the 1 % level
of significance with a chi-square of 20.74 at nine degrees of freedom.
But this is very unevenly distributed over the contingency table
from which the calculation was made, over half (11.80) of the
value for chi-square coming from one cell (Book 4, compounds of
five or more members). Books 2 and 6 prove homogeneous in
respect of compound-length, but a difference in authorship is
sufficiently well-established by word distributions.

Our conclusion must be, then, that Books 1, 3, 4 and 5 of the *Kāmasūtra* are by a single author, presumably Vātsyāyana, whose name the work bears. This author was not responsible for the style of Books 2 and 6, and probably not for Book 7, which, however, is too short to reach a firm decision; and each of these three books, or at least Books 2 and 7, have distinct styles.

The *Kāmasūtra* opens with an invocation to Dharma, Artha, and Kāma, "for they are the subjects under discussion in this treatise; and to the *ācāryas* who have explained them, for (this treatise) is connected therewith," [1] which the commentary elucidates as meaning that the *Kāmasūtra* is an abridgement of the treatises of the *ācāryas*.[2] There follows a genealogy of the *śāstra*: after the creation of beings Prajāpati recited in 100,000 chapters the essence of the 'group of three'; Svāyambhuva Manu separated from this the part dealing with *dharma*, Bṛhaspati the part dealing with *artha*, while Nandin, attendant of Mahādeva, recited the *Kāmasūtra* separately in 1000 chapters. This Auddālaki Śvetaketu abridged (*saṃcikṣepa*) in 500 chapters, and Bābhravya Pāñcāla in turn abridged Śvetaketu's work to 150 chapters of seven books with titles corresponding to those of Vātsyāyana's work. "At the request of the courtezans of Pāṭaliputra, Dattaka separated its sixth book, *Vaiśika*." In this manner seven separate treatises arose from different teachers:

    (1) Cārāyaṇa on *Sādhāraṇa*
    (2) Suvarṇanābha on *Sāmprayogika*
    (3) Ghoṭakamukha on *Kanyāsamprayuktaka*
    (4) Gonardīya on *Bhāryādikārika*
    (5) Goṇikāputra on *Pāradārika*
  [(6) Dattaka on *Vaiśika*]
    (7) Kucumāra on *Aupaniṣadika*.

"The *śāstra*, thus composed in parts by many *ācāryas*, almost became lost. Because the partial *śāstras* composed by Dattaka, etc. were fragmented, and because of the difficulty of studying that of Bābhravya on account of its bulk, having abridged (them), this *Kāmasūtra* has been composed (containing) all the topics in a small book."

-----

[1] *Kām.* 1.1.1-19. The translation of K. Rangaswami Iyengar in English and the German-Latin translation of Richard Schmidt have been consulted.
[2] *Tat-praṇīta-śāstra-saṃkṣepeṇa hi śāstrasya praṇayanāt.*

That Vātsyāyana used these seven treatises severally as the basis of his seven books, whose titles they bear, and the treatise of Bābhravīya Pāñcāla generally, is confirmed by the manner in which he quotes his authorities. In each of the books except the last the opinions of the respective predecessors are cited by name at least twice, with approval, as are those of the Bābhravīyas in all of the books. The exceptions to this pattern are few: Suvarṇa-nābha, Ghoṭakamukha and Gonardīya appear together with Cārāyaṇa in Book 1, Dattaka is quoted in Book 2 (as well as Book 6, where he belongs), and Auddālaki Śvetaketu, the predecessor of Bābhravīya Pāñcāla is cited once in Books 2 and 6. Besides the Bābhravīyas (followers of Bābhravya Pāñcāla) the only other school mentioned is that of Suvarṇanābha. Vātsyāyana mostly quotes these authorities with approval; views attributed to ācāryāḥ, eke, etc. are on the other hand more often contradicted.[1]

Thus Vātsyāyana had Bābhravya's treatise and seven mono-graphs before him when he composed his *Kāmasūtra*. We have in Jain sources independent testimony to the separate existence of two of these monographs; in a sort of *Index* of disapproved works appear the titles *Ghoḍa(ya)muham*, probably the work of Ghoṭaka-mukha on *Pāradārika* (the *Arthaśāstra* quotes the views of a Ghoṭamukha who may be the same person) and *Vesiya*, probably the *Vaiśika* of Dattaka.[2] Vātsyāyana's method was to abridge; characteristically of ancient Indian authors of scientific treatises, he asks no credit for originality, but on the contrary, ascribes his knowledge to previous teachers, and ultimately to the Creator himself.

The statistical analysis of the *Kāmasūtra* shows that in the homo-geneous core, Books 1, 3, 4 and 5, Vātsyāyana has succeeded in imposing his own style on the material he has reworked, while for Books 2 and 6, and perhaps the shorter Book 7, he has incorporated the existing monographs of different authors, abbreviating them but not so completely reworking them as to recast them in his own personal style; or to put it more circumspectly, he has in these

---

[1] In this paragraph I again rely on Wilhelm's excellent discussion, cited above, p. 73, fn. 3.

[2] The list includes *Koḍillayam* (*Kauṭilīyam*) but not the *Kāmasūtra* of Vātsyāyana, which suggests a relative chronology. It is found in the *Nan-dīsūtra* and *Anuyogadvāra*. From the Introduction, *The Uttarādhyāyana-sūtra*, ed. Jarl Charpentier, p. 29, after Weber.

cases so closely followed his originals that they have heavily in-
fluenced his style with their own. Something mediating between
verbatim quotation and complete rewording must be envisaged.
It is significant that the original of one of these, Book 6, entitled
Vaiśika, is singled out for special mention by Vātsyāyana in the
passage given above, and was sufficiently well-known to have come
to the attention of Jain monks.

The *Arthaśāstra* devotes only a single passage to describing its
relation to its predecessors, namely the opening passage of the
work which I have discussed above (Chapter 3): "This single
Arthaśāstra has been made for the most part by drawing together
(or condensing) as many *arthaśāstras* as have been composed by
previous teachers for the acquisition and protection of the earth"
(1.1.1). This statement clearly means that not merely the views
of predecessors quoted in the *Arthaśāstra*, but the bulk of the entire
work is to be referred to previous treatises; that the *Arthaśāstra*
(much like the *Kāmasūtra*) is a compendium of earlier treatises,
whether in abridgement or in full.

There are a few scraps of evidence which tend to support the
view that the original of Book 2, the *Adhyakṣapracāra*, once had a
separate existence which extended some time after the composition
(or shall we say, compilation) of the *Arthaśāstra*. In the first place,
Vātsyāyana, who certainly knew the *Arthaśāstra* more or less in its
present form, defines *artha* as the acquisition and increase of
learning, land, gold, cattle, corn, household utensils, friends, etc.,
and advises one to learn it from the *Adhyakṣapracāra*, those con-
versant with commercial matters, and merchants. The commentator
explains, "The *Adhyakṣapracāra* is a treatise concerning the duties
discharged by overseers." [1] The author of this commentary, which
is called *Jayamaṅgalā*, himself was no stranger to the *Arthaśāstra*,
since it is probably he who wrote commentaries of the same name
not only on the *Arthaśāstra* but on Kāmandaka's *Nītisāra* as well.[2]
It may not be justified to insist that a separate treatise is here
meant, but, in the second place, Medhātithi, who, as we have seen
in the previous chapter, also drew from the *Arthaśāstra* in much its

---

[1] *Kām.* 1.2.10: '. . . *adhyakṣāḥ pracaranty anenety Adhyakṣapracāraḥ
śāstram.*" Differently Schmidt: "Wie die Aufseher auftreten, das bildet das
"Auftreten der Aufseher", whether because he had different readings before
him or because in 1907 he had not seen the *Arthaśāstra*.

[2] G. Harihara Sastri, *Arthaśāstra-vyākhyā Jayamaṅgalā*, introduction.

present form in whole or in major part through a predecessor, Bhāruci, quotes two passages from an *Adhyakṣapracāra* which have no counterparts in the *Arthaśāstra* or in Bhāruci. The first deals with the qualities of a good minister (on Manu 7.61):

> uktaṃ cādhyakṣapracāre:
> buddhimān, anuraktaś ca yukto, dharmārtha-kovidaḥ/
> śucir, dakṣaḥ, kulīnaś ca mantrī yasya sa rājyabhāk//
> tasmin nikṣipya kāryāṇi bhogasaṃgī na naśyati/
> rāja-vaśya-vidhis tena dānānugrahaṇair iti//

The second (on Manu 7.81) mentions the overseers of elephants, horses, and cattle:

> yathoktaṃ Adhyakṣapracāre:
> te adhyakṣāḥ sarvāṇi kāryāṇi avekṣerann anyeṣām nṛṇām tat sthāno-
> payoginām kāryāṇi kurvatām hastyadhyakṣeṇa hastipakāḥ aśvādhy-
> akṣeṇa turaṅgamādyāḥ gavādhyakṣeṇa karṣaṇādayaḥ.

The first quotation is particularly interesting in that it deals with *mantrins*, which are outside the scope of the *Adhyakṣapracāra* as we now have it: *mantrins* and *amātyas* are discussed in Book 1. It is conceivable that the forebear of Book 2 was a work entitled *Adhyakṣapracāra* dealing with ministers as well as overseers, and that parts of it have contributed to *Arthaśāstra* Book 1, and parts were lost through abridgement.

I believe then, that the various hands we have detected in the *Arthaśāstra* belong to the *pūrvācāryas*, the previous teachers whose works, in condensed form perhaps, were bound into a single work by a compiler who divided the work into chapters, added the term- inal verses, composed the first and last chapters (and possibly one of the three long books), and who may have added other original material but did not rework his sources to the extent that their stylistic features were obscured.

The Ages of the Arthaśāstra

It being shown that the *Arthaśāstra* has not one author but several, it follows that it is to be referred to not one date but to as many dates as it has authors. Each separate hand in the work, each of Books 2, 3 and 7, has its proper age, and each (unless the compiler authored one of the three long books) precedes the age of the com- pilation of the *Arthaśāstra*.

Our study cannot name any of the hands in the *Arthaśāstra*, for presumably these authors left no other works to us which could form

the basis for an identification. We can say with confidence that
Kauṭilya cannot have been the author of the *Arthaśāstra* as a whole;
but whether he wrote a part, and if so, which part, we cannot decide
without appeal to evidence outside the statistical study I have con-
ducted. Yet, although the conclusions I have reached contain no
implications for the dating of the *Arthaśāstra* more specific than the
one that there are several dates, and that the long books need not
have been composed simultaneously, I would close with some con-
sideration of the ages of the *Arthaśāstra* in the light of my findings
on the way it was composed.

The dates of the compilation of the work must be bounded on
one side by the dates of the books which betray a knowlege of
the finished *Arthaśāstra*, and on the other by the date of the latest
monograph to be incorporated into it. The earliest works to refer to
the *Arthaśāstra* are the *Pañcatantra*, the *Kāmasūtra*, and Aryaśūra's
Jātakamālā; in addition, the *Mudrārākṣasa* presupposes its exist-
ence. Hertel originally put the *Pañcatantra* in *c.* 200 B.C., on the
basis of the ascription to Kauṭilya of the work it quotes, but the
presence of the word *dīnāra* (*denarius*) ensures that it is at least
post-Christian, when the Roman trade became important; its upper
limit is fixed by the Pahlavi translation in the sixth century A.D.[1]
There is little by which the *Kāmasūtra* may be dated, except its
reference to king Sātavāhana, who accidentally killed his queen
Malayavatī in amorous sport with a pair of scissors, thought to
be Kuntala Sātakarṇi Sātavāhana, *c.* first century B.C. Sir R. G.
Bhandarkar placed Vātsyāyana in the first century A.D.,[2] Jolly in
the fourth.[3] The earliest date to which the *Mudrārākṣasa* may be
assigned is the reign of Skanda Gupta (beginning of the fifth
century A.D.) or conceivably that of Candra Gupta II (last quarter
of the fourth).[4]

For Āryaśūra we have more precise information since a work by
someone of that name was translated into Chinese in A.D. 434,
and this is probably the same as the author of the *Jātakamālā*,
which makes oblique but certain references to the *Kauṭilīya
Arthaśāstra*.[5] E. H. Johnston therefore argued that Āryaśūra should

---

[1] Discussion in F. Edgerton, *The Pañcatantra Reconstructed*, vol. 2, p. 182.
[2] *Proc. and Trans. of the First Oriental Conference*, Poona, vol. 1, p. 25.
[3] Introduction to Jolly-Schmidt, p. 29.
[4] See Chapter 2.
[5] See the excellent article of E. H. Johnston, "Two Studies in the *Artha-
śāstra* of Kauṭilya" in *JRAS*, 1929, p. 77 ff.

be referred to the fourth century, and the later limit for the compila-
tion of the *Arthaśāstra* to *c.* A.D. 250; and if the Pali *Jātakas* can
be presumed to refer to the *Kauṭilīya* (the evidence is not clear),
the reference must have existed in the original *Jātakas* from which
the later works drew, and the limit for the *Arthaśāstra* must be set
back by perhaps a century. Aśvaghoṣa, however, who belongs to
the second century A.D., betrays a knowledge of *arthaśāstra* but
not of the *Kauṭilīya*, so that the work cannot be put much earlier.

Let us provisionally accept the date of *c.* A.D. 250 for the compila-
tion of the *Arthaśāstra*. How does this jibe with the other evidence?
The only data within the work yielding fairly firm and precise
termini are from Book 2: [1] (a) the use of Sanskrit in royal edicts in
Chapter 10, (b) the presence of punch-marked coins in Chapter 12,
and (c) certain place-names occurring in Chapter 11.

The use of Sanskrit in inscriptions effectively begins in A.D. 150
with the celebrated Junagadh Rock inscription of Rudradāman,
and only becomes widespread under the Guptas, A.D. 320-550.
There is indeed a short Sanskrit inscription from Ayodhyā in Śuṅga
times, by "Dhana..., sixth son of Puṣyamitra", i.e. roughly late
second century B.C.,[2] but its occurrence at a time when
Prakrit is universal in inscriptions must be regarded as exceptional.
We have, therefore, a *terminus post quem* of *c.* A.D. 150; the coinage
data gives us the other terminus. Book 2 appears to be speaking of
uninscribed coins bearing symbols (*lakṣaṇa*) or forms (*rūpa*) to
judge from the terms for the master of the mint, *lakṣaṇādhyakṣa*,
and coin, *rūpya-*, *tāmra-rūpam* (2.12.24), and it is reasonable to
suppose that these are the familiar punch-marked coins, which were
certainly introduced before the Mauryan period, and were perhaps
in use by the time of the Buddha. Cast or die-struck coins bearing
inscriptions which had been introduced by the series of invaders
from the Northwest commencing with the Indo-Greeks, however,
eventually replaced them. Rudradāman and the Guptas, with whom
the spread of the use of Sanskrit in inscriptions is associated, used
inscribed coins exclusively in preference to the older type; and
Manu's use of the name *purāṇa* ('old') for the punch-marked silver
karṣāpaṇa is an index of its obsolescence by, at the latest date
estimated for that work, the end of the second century. Both these

---

[1] See above, Chapter 1.
[2] Rai Bahadur Daya Ram Sahni, "A Sunga Inscription from Ayodhya"
Epigraphia Indica 20, 1929-30, pp. 54-58.

events, the introduction of Sanskrit in royal edicts and the disappearance of punch-marked coins, of course, occur rather later in South India, where the older variety of coins continued to be minted to the fifth century. But it is likely that Book 2 is of northern provenance: it tells us that the shadow of the gnomon disappears at midday of the summer solstice, a condition which is only fulfilled along the Tropic of Capricorn, e.g. in Sindh, Malwa, Magadha and Bengal (2.20.41-2 and note). For the North the arguments in combination suggest a date within the second century A.D., conceivably somewhat earlier, but scarcely later than the third century.[1]

The place-names of Book 2, with one exception, provide further convergent evidence. The reference to Chinese silk (*cīnapaṭṭa*, which is *cīnabhūmija*, 2.11.114) cannot antedate 221 B.C. when the Ch'in dynasty, from which China got its name, gained supremacy; the date at which the name reached India, of course, must be somewhat later. Jayaswal's argument,[2] which has enjoyed a certain vogue, that Cīna refers to a silk-weaving Gilgit tribe called Shīna, is impossible, for in that case the ancient Indians would have to be presumed ignorant of the Chinese. The association of the Cīnas with the Dāradas and other peoples of the Northwest in Manu and elsewhere is no obstacle to their being Chinese in view of the vast Central Asian empire of the Han.

The next argument, first formulated by Sylvain Lévi,[3] pushes the date forward. In 2.11.42 coral (*pravālaka*) is described as *ālakandaka* (v. ll. comm. *ālasāndraka*, *ālatsāndraka*) or *vaivarṇika*. According to the commentator Bhaṭṭasvāmin, the first is on the Barbara coast, the second "in Greek-land", *yavanadvīpe*, both being in (therefore approached from) the sea (*samudraikadeśaḥ*). There can be no doubt that Alakanda is Egyptian Alexandria whose

---

[1] The data on coinage in the *Arthaśāstra* illustrate the problems of interpretation which can arise when the text is regarded as unitary. The *Arthaśāstra*'s silver coin is called *paṇa*, its copper coin *māṣaka* in Book 2; but the fines laid down in Book 3 are in numbers of *paṇas* in general agreement with the prescriptions of the *smṛtis* where, however, the *paṇa* is a copper coin (see the discussion in D. C. Sircar, *Studies in Indian Coins*, Ch. 4). When it is recognized that Books 2 and 3 are by different hands, however, the problem of internal contradiction disappears.

[2] *Hindu Polity*, p. 373, fn. 7.

[3] Sylvain Lévi, "Alexander and Alexandria in Indian Literature", *IHQ* 12 1936, pp. 121-133.

Mediterranean coral was prized by Indians to a degree which astonished Pliny. The passage can hardly precede Augustus, when direct sea-going commerce began in earnest. Lévi notes that Sanskrit words for coral (*pravāla, vidruma*) are not attested in the Veda, Pāṇini or Patañjali, but first appear in texts of the Christian era to which the *Arthaśāstra* therefore belongs. I might add that the same is true of words for silk (*kauśeya, cīnapaṭṭa*).

A further argument, based on that of Hemachandra Raychaudhuri,[1] concerns the name for Ceylon. Gems (2.11.28) and aloe (2.11.59) are described as *pārasamudraka*, glossed "from Siṃhala", certainly meaning Ceylon and not, as Kangle translates, "from beyond the sea", since the context requires a proper name. Now the Aśokan edicts of the third century B.C. refer to Ceylon exclusively as Tambapaṇṇi, Sanskrit Tāmraparṇi, apparently 'copper (colored) leaf', perhaps from the color of its lateritic soil.[2] If the *Arthaśāstra* were a product of the Mauryan age, then, it should call Ceylon Tāmraparṇi, not Pārasamudra; but not only does it fail to do so, it uses *tāmraparṇika* (2.11.2) only to describe pearls of the Tāmraparṇi River of South India, noted for its pearls in Kālidāsa and elsewhere.

This is not to say, of course, that Tāmraparṇi as a name for Ceylon disappeared from Indian usage with the passing of the Mauryan dynasty; it is attested, for instance, as late as the third century A.D. in the Buddhist inscriptions of Nagarjunikonda.[3] A third name, Siṃhala (dvīpa), 'island of the Siṃhalas' takes its name from the tribe which settled the island; it continued in use alongside Tāmraparṇi which it finally superseded and after many transformations became 'Ceylon'. The issue, however, is the dates within which the rare name Pārasamudra was current in India. It is resolved by an examination of Greek and Latin references.

Taprobane, equivalent to Tāmraparṇi, is the common name for

---

[1] Hemachandra Raychaudhuri, *IA 48* 1919, pp. 195-6.

[2] *MV* 7.40-41, which explains that the weary followers of Vijaya reddened their hands by resting them on the red earth, as if the name were Tambapāṇi. *MV* uses this as the name of a city founded by Vijaya, a region of Ceylon, and (together with Laṅkā) the island as a whole; Vijaya's followers are indeed Sīhalas, but Sīhaladīpa (whence Ceylon) is not used.

[3] J. Ph. Vogel, "Prakrit Inscriptions from a Buddhist Site at Nagarjunikonda", *Epigraphia Indica 20* 1929-30, pp. 1-36; Inscription F, p. 22: Tambapaṃṇidīpa, but also Sīhaḷavihāra. Dated in the 14th year of king Māṭharīputa (Virapurisadata) of the Ikṣvāku dynasty, *c.* A.D. 254 on Sircar's reckoning.

Ceylon among the Greeks at all times. It is the first of the names to be introduced among them, being first used by Onesicritus, who accompanied Alexander, and Megasthenes and Deimachus, the Seleucid ambassadors to the Mauryan court, that is about contemporary with its first appearance in Indian inscriptions.

The name recurs in the *Periplus of the Erythraean Sea*, a manual of Red Sea ports, generally held to have been written by a Greek merchant seaman in the last quarter of the first century A.D. (Jacqueline Pirenne has proposed a date of A.D. 225 or later [1] though there are difficulties in her argument, one of which I shall deal with below, which render it doubtful.) In this work Ceylon is referred to as Palaisimoundou, "called by the ancients Taprobane" (61). Hjalmar Frisk, the most recent editor of the text, rejects this interpretation of the passage in question.[2] It reads: ... νῆσος λεγομένη Παλαισιμούνδου (MS. πάλαι σιμούνδου), παρὰ δὲ τοῖς ἀρχαίοις αυτῶν χαρηρις < Τα >προβάνη. The supplement Τα is not in doubt, but χαρηρις must be corrupt, and Frisk suggests ... νῆσος λεγομένη Παλαισιμούνδου παρὰ [δὲ] τοῖς ἀρχαίοις, < παρὰ δὲ τοῖς > αυτῆς < επι >χωρίοις < Τα >προβανη, i.e. that the island was called Palaisimoundou by the ancients and Taprobane by the natives. Frisk feels that this is necessary because Taprobane continues in Greek usage long after the *Periplus*, while Ptolemy and his successors attest (Palai)simoundou as the *ancient* name, contrary to what the *Periplus* is supposed to have said. The difficulty, however, is imagined; the author of the *Periplus*, conscious that the name Palaisimoundou, which he had perhaps learned in Indian ports, will be unknown to his Greek readers, gives for their convenience the familiar equivalent Taprobane which 'the ancients' —the geographers of the fourth and third centuries B.C., such as Megasthenes—had employed. (I shall come to Ptolemy in a moment.) There is therefore no reason to balk at the meaning of the text, which, however corrupt, is plain enough. The emendation proposed, moreover, is unnecessarily extensive, for the text makes sense as it stands, and there is no reason to suppose corruption anywhere but in χαρηρις; and it is improbable, in that it upsets the general practice, which Ptolemy attests, of giving the current name before the ancient.

---

[1] "Un Problème-clef pour la chronologie de l'Orient: la date du 'Périple de la Mer Érythrée' ", *JA 249* 1961, p. 441 ff.

[2] *Le Périple de la Mer Érythrée* ed. Hjalmar Frisk, Göteborg, 1927.

Of similar effect is the interpretation of Pirenne, whose article brought this passage back to the attention of Indianists. Following the manuscript she takes Palaisimoundou as two separate words, 'formerly (πάλαι) Simoundou', and connects 'the ancients' in an undefined way with Taprobane. But this will hardly do since the *Periplus* then lacks a current name for Ceylon.

In the *Geography* of Claudius Ptolemy (7.4.1), *c.* A.D. 140, we find a new state of affairs: the name Palaisimoundou, having failed to replace the familiar Taprobane, is now out of use and only remembered, one can presume, from the *Periplus* itself or another of the numerous *periploi* written in the first century in consequence of the spectacular growth of trade with India since Augustus. Furthermore, another name for Ceylon, Salike, has recently entered Greek usage. This name Ptolemy connects with a people called Salai (Sialai in Lassen's reading), who are the Sīhala tribe, the Pali form of Simhala. Equivalents of Sīhala(dīpa) continued in occasional use among the Greek without however replacing Taprobane; Ammianus Marcelinus has Serendivi, and the Byzantine monk Cosmos Indicopleustes significantly states that the island is "called Sielediba by the Indians, but by the Greeks Taprobane".

Here, too, Pirenne wants to construe "formerly Simoundou". The text reads: ... (Ταπροβάνη), ἥτις ἐκαλεῖτο Παλαισιμούνδου (Renou ed. πάλαι σιμούνδου), νῦν δὲ Σαλική.[1] *Pace* Pirenne, it is not necessary to suppose that Ptolemy, whose sources were legion, was so ill-informed about Ceylon as to misunderstand its name in this manner. He states that the island "was called Palaisimoundou"; the verb alone is adequate to supply the tense. Pirenne is however certainly right that the variant Simoundou arose from the error of taking the first part of the name to be an adverb, but the fault belongs to one of Ptolemy's readers, not Ptolemy himself. Stephanus of Byzantium, like Pirenne, found an adverb in Ptolemy's Palaisimoundou. He says, ... (Ταπροβάνη) ἢ πάλαι μὲν ἐκαλεῖτο Σιμούνδου, νῦν δὲ Σαλική.[2] There can be no doubt about the reading; πάλαι is hived off and separated from Σιμούνδου by two

---

[1] The reading from Louis Renou's ed., inaccessible to me, is supplied from Pirenne, cited above.

[2] P. 102, l. 20. Another version of Ptolemy is found in the *Anonymi Geographiae Expositio Compendiaria* of which only the trans. is available to me: "... an immense island in the Indian Sea, called formerly Simunda, but now Salice ..." (R. C. Majumdar, ed., *The Classical Accounts of India*, p. 451.)

words. My interpretation of Ptolemy, on the other hand, is also that of Marcianus of Heraclea, whose version of the passage gets Ptolemy's intention correctly: ... ἡ Ταπροβάνη νῆσος ἡ Παλαισιμούνδου καλουμένη πρότερον, νῦν δὲ Σαλική.[1] The πρότερον clearly derives from the tense of Ptolemy's verb, not from a misunderstanding of Palaisimoundou, which is left intact. Stephanus' error, once established, would be sufficient to cause the division of Palaisimoundou in the manuscripts of the *Periplus* and Ptolemy.

Palaisimoundou is Pārasamudra. Lassen's etymology, Pālisīmanta, will not do; it is unattested and will not yield 'Haupt des heiligen Gesetzes' or any other rational meaning.[2] That a name apparently meaning 'beyond the sea' assumes an Indian, not a Ceylonese point of reference is no obstacle since the Siṃhalas were originally Indian colonists. The nasalization of Sanskrit -*udra*, or rather Prakrit -*udda* in Palaisimoundou (Latin Palaesimundus) hardly needs explanation, but might have been influenced either by the common pre-Hellenic place-names in Greece in -*ndos*, or by the familiar Latin adjectival termination -*undus*.[3] Most valuable corroboration of this identification is supplied by a hitherto unexplained parallel name in Ptolemy (which incidentally also supports the contention that Ptolemy's Palaisimoundou must be read as one word), Andrasimoundou, a promontory jutting out into the ocean from the western coast of Ceylon, whose Sanskrit equivalent must be, aptly, Antarsamudra, 'surrounded by the sea'.[4]

Thus Palaisimoundou is attested among the Greeks by the *Periplus* and Ptolemy, probably from Indian sources; Pārasamudra is attested among the Indians by the *Arthaśāstra*; and it is further attested among the Ceylonese themselves by Pliny, writing in the middle of the first century A.D. (*Nat. Hist.* 6.81ff.). He tells us that a freedman of one Annius Plocamus, while sailing around Arabia, was blown off course all the way to the port of Hippuri in Ceylon (Taprobane), and was entertained by the king who subsequently sent four envoys to Rome led by Rachias, probably the *raṭiya/raṭika*, 'district chief' of the Sinhalese inscriptions, and not

---

[1] P. 15; see also pp. 3, 44.

[2] *Indische Alterthumskunde* vol. 3, p. 212.

[2] I am obliged to Dr John Pinsent of the Department of Greek, University of Liverpool, for this point, and for several others which arose in discussion of this section.

[4] See *MW* s.v. *antar*, which gives Antargiri, 'situated among the mountains' as the name of a country in the *Mbh*.

a proper name. Pliny says the embassy occurred in the principate
of Claudius, and was the source of his information that the city
Palaesimundus, our Pārasamudra, "which is the most famous of
all the places in the island and a royal residence, with a population
of 200,000", lay next to the harbor, and that one of the two great
rivers inland bore the same name. Perhaps Pliny ascribes the name
of the island to the capital of the kingdom because he was so used
to the name Taprobane.

By chance two bits of evidence throw further light on Pliny's
story. The first consists of a graffito in a Greek and Latin version
which was found in a cave along the ancient Coptos-Berenice road
in the Eastern Desert of Egypt. It records the name of Lysa, a slave
of P. Annius Plocamus, and the dates, 2nd and 5th July in the
35th year of the emperor, who must be Augustus (27 B.C.-A.D. 14),
since he was the only emperor to have reigned so long, not Claudius
(A.D. 41-54), the year being therefore A.D. 6. It is not suggested
that Lysa is the freedman who unwillingly visited Ceylon, but it is
possible from the identity of names and the location of the inscrip-
tion that his master is the same Annius Plocamus of Pliny, whom
he describes as a Red Sea tax-farmer. Sir Mortimer Wheeler suggests
that Pliny's date for the freedman's sojourn in Ceylon should be
put back appreciably on the grounds that the use of the monsoon
for navigation, of which this traveller was ignorant, had been
discovered early in the first century; but Pliny is more likely to
be reliable as to the date of the episode than in its navigational
details, and the Annius Plocamus of the graffito (or was it Annius
Plocamus *père*?) could easily have lived the 40-odd years which
separate him from Pliny's episode.[1] Secondly, the *Mahāvaṃsa Ṭīkā*
apprises us of an embassy, which may be the same as Pliny's, in
the reign of Bhātikābhaya (Geiger's date, A.D. 33-66, comprehends
the reign of Claudius, though it must not be regarded as exact),
who sent envoys to the country called Romanukkha from which
they obtained large quantities of coral to adorn the Mahāthūpa
at Anurādhapura.[2] Here again we meet the coral of the Mediterra-
nean and ancient India's great era of foreign trade. Thus the name

---

[1] David Meredith, "Annius Plocamus: Two Inscriptions from the Bere-
nice Road", *J. of Roman Studies 43* 1953, pp. 38-40; R. E. M. Wheeler, *Rome
Beyond the Imperial Frontiers*, p. 128.
[2] *MṬ* p. 630, according to S. Paranavitana in *History of Ceylon*, vol. 1,
pt. 1, p. 225.

Palaisimoundou was current in the Greco-Roman world from the second quarter of the first century A.D., and was obsolete by the middle of the second. The same bounds are probably roughly correct for Pārasamudra in India, and hence for the *Arthaśāstra*, Book 2.

References to Southeast Asia are unlikely if not impossible before the Christian era, but the existence of such references in our text are somewhat debatable. *Kāmbukaṃ* silver (2.13.10, v. ll. *kāmamalaṃ kambuṃ, kāmaḷukaṃ*) may come from Cambodia, but it should be *kāmbojakaṃ*; and Svarṇabhūmi (2.11.69, no variants) could be Suvarṇabhūmi, the 'land of Gold' which the western coast of Southeast Asia was to the ancient Indians and, through them, to the Greek geographers of the Roman trade, but its corruption to Svarṇa- is unlikely. So these two place-names must remain unidentified.

Taken altogether, the evidence converges on the middle of the second century A.D. But if the Hūṇas are mentioned in Book 2, as Sir Harold Bailey believes,[1] we shall have to look to the late fourth century or beyond. Bailey argues that as the Iranian *Bahman Yašt* speaks of both 'white' (*spēt*) and 'red' (*karmīr*) Hyōn, Huns, so Varāhamihira has *śveta-* and *sita-hūṇa*, 'White Hūṇa' besides *hala-hūṇa*, evidently the red variety. *Hala* will then be a loan-word signifying 'red', or at least a 'dark' color. Three *Mahābhārata* passages name an apparently northwestern people, Hāra- (or Hara-, but not Hala-) Hūṇa. One variant, Hāra-Hūra, perhaps altered to produce a riming word, leads directly to the *hārahūraka* of *Arthaśāstra* 2.25.25, in the chapter on intoxicating beverages: "Wine is the juice of grapes; its place of origin is the explanation of the names 'from Kapiśa' and 'from Hārahūra'." The vine was cultivated in Afghanistan, and introduced thence to India.

A second possible Hūṇa reference, this one in Book 3, is due to Pran Nath.[2] *Arthaśāstra* 3.18.8 mentions a people, Prājjūnakas, together with the Gandhāras of the Northwest; the reading is questionable, and a commentary reads Prāgghūṇaka, 'Eastern Hūṇa'. Kangle wants to take Prājjūnaka as a Prakritism for Prārjuna, "perhaps related to the Ārjunāyanas of the inscriptions", but the difficulty is that both the Prārjunas and the Ārjunāyanas are associated in the Allahabad Pillar Inscription with tribes of the

---

[1] "Hārahūṇa" in *Asiatica*, pp. 12-21.
[2] Pran Nath, *IA 60*, 1931, p. 121.

Bhilsa region.[1] At least one of these tribes, however, the Mālavas, previously inhabited the Punjab and Rajasthan, so it is possible that the Prarjunas too were once in the Northwest.

Leaving aside Prāgghūṇaka as a doubtful case, if Bailey's explanation of the name Hārahūra is correct (and the passage in which it occurs cannot be interpolated since it explains the *madhu* in the list of intoxicants, which is the subject of the chapter) we would be obliged to conclude that the earliest possible date for the completion of Book 2 would be the late fourth century when the Hūṇas came into view of the Indians. But this is scarcely possible. It is rendered doubtful by the reference to Mediterranean coral, since the sea-going trade with Rome began to decline before the Hunnish tide rose;[2] and it is contradicted by the evidence of Āryaśūrya, the evidence of coins, and above all, the invaluable testimony of Ptolemy on the obsolescence of the name Palaisimoundou. Bailey's explanation of Hala-Hūṇa looks certain; but the place-name Hārahūra must be distinct. The evidence excludes the age of the Hūṇas as strongly as it does the age of the Mauryas; it points to c. A.D. 150.

As for the other hands in the *Arthaśāstra* which I have isolated, I may merely note that there is no necessity for so late a date for the legal books (3 and 4), and good reason to suppose that they antedate the *Yājñavalkya Smṛti*, and perhaps the evolution of the *dharma smṛtis* as a whole. Book 7 and its affiliates offer no chronological data at all; the only reason to hesitate from assigning it a

---

[1] So Dwivedi, p. 23, cited above, Chapter 1, fn. 12.

[2] According to the standard article by Robert Sewell, "Roman Coins Found in India" (*JRAS* 1904, p. 591 ff; tables of finds updated in Wheeler, "Arikamedu", *Ancient India* 2, 1946, App. I, pp. 116-121), the Roman trade declined after Nero (d. A.D. 68) and ceased almost entirely after Caracalla (217). But there are difficulties. Sewell's conclusions are in urgent need of reappraisal, and masses of Roman coins in Indian museums still await study. David W. MacDowall shows that the relative paucity of silver denarii (though not of gold aurei) in India from Nero onward is partly a result of that emperor's coinage "reform" in which the weight and silver content of the coins were reduced. The result was that pre-reform coinage was preferred outside the empire, giving a false impression of a decline in trade ("Numismatic Evidence for the Date of Kaniṣka" in A.L. Basham, ed., *Papers on the Date of Kaniṣka*, p. 134 ff.). And Rome after all bought off Alaric with, among other things, 3000 pounds of pepper, a sign of continuing trade with India in A.D. 408. But with all these caveats, it still appears to be true that India's trade with the Mediterranean was at a low ebb by the time the Hūṇas came onto the horizon.

very early date is the degree to which its doctrines have been elaborated. Yet the *maṇḍala* doctrine, at least, seems to have been carried further in some other *arthaśāstras*, to judge from the references to them in the *Kāmandakīya*;[1] and some of the typical *arthaśāstra* categories (the four-fold army, the concept of *bheda* or 'sowing dissension') may be found in the Pali canon.

If the *Kauṭilīya Arthaśāstra* in its present form is not so old as it pretends, the *śāstra* itself is certainly old, predating the *dharma smṛtis*.[2] Manu, the earliest of the *smṛtis*, draws freely on material proper to the older *dharma sūtras* (except in his first and last chapters, which contain the 'frame', philosophical matters, and the *phalastuti*). This material is the source for 42 % to 55 % of Chapters 2 to 6 and 10 and 11 (or 50 % to 61 %, if the *Mahābhārata* be regarded as a source of Manu); but in Chapters 7 through 9 these figures drop to between 14 % and 22 % (or 22 % to 29 %, including the *Mahābhārata*). For the figures see Table 7.4.

Chapters 7, 8 and 9 of Manu (to 9.325) form a treatise on *rājadharma*, of which Chapter 7 is chiefly devoted to kingly affairs proper and Chapter 8 and the greater part of Chapter 9 deal with the eighteen titles of the law which make their appearance first in Manu among the metrical *smṛtis*. While some of the material in these chapters must of course be original to the composer of the *smṛti*, it is certain that for some he draws on *arthaśāstra*. In 7.154, for example, Manu advises the king to reflect on the eight-fold business (*aṣṭavidhaṃ karma*) and the 'group of five' (*pañcavarga*) which would be incomprehensible without reference to *arthaśāstra*; and we have seen that Bhāruci goes to great lengths to elucidate from *arthaśāstra* sources.[3] Bühler himself was sensible of this indebtedness much before the publication of the *Kauṭilīya*; for in 7.155-6 where the four elements of the circle of states are named (middle-most, conqueror, neutral, foe), he translated: "These (four) constituents (prakriti. form), briefly (speaking), the foundation of the circle (of neighbours); besides, eight others are enumerated (in *The Institutes of Polity*)[4] and (thus) the (total is declared to be twelve." As Manu does not trouble to specify the "eight others"

---

[1] Chapter 8. See above, Chapter 3, p. 73, fn. 1.
[2] For the argument which follows I am indebted to an idea in Prof. Dwivedi's "The Age of Kauṭilya", p. 15 ff.
[3] Above, Chapter 6, Example 12, commentary.
[4] My italics.

we are obliged to look for them in *arthaśāstra*. Even more striking is the case of the eighteen titles of the law; for here is the very core of the *smṛtis*, and yet they are scarcely to be found in the older *dharma sūtras*. They represent, then, not an evolution from the *sūtra* rules with their orientation to brahmanical ritual and custom, but either the creation of the author of the *Manu Smṛti* or the adaptation of material from a different source. And it is at least possible that the law of transactions (*vyavāhara*) organized into 18 titles developed at the court among the king's legal advisors, where, too, the theory of administration and foreign affairs, in short, the *arthaśāstra*, developed.

TABLE 7.4

Verses in Manu with correspondences in the *dharma sūtras* (Gautama, Baudhāyana, Āpastamba and Vasiṣṭha) or in the *dharma sūtras* and the *Mahābhārata* (chiefly parvans 1, 3, 12 and 13). Drawn from the concordance appended to Bühler's translation of Manu
(*SBE* vol. 25)

	Dharma sūtras	Dharma sūtras and Mahābhārata
Manu 1	1.7 %	24.4 %
Manu 2	53.4 %	58.7 %
Manu 3	46.9 %	52.8 %
Manu 4	48.5 %	57.3 %
Manu 5	47.3 %	49.6 %
Manu 6	55.7 %	60.8 %
Manu 7	13.7 %	22.1 %
Manu 8	21.9 %	22.6 %
Manu 9	22.3 %	29.2 %
Manu 10	42.0 %	58.0 %
Manu 11	45.9 %	53.8 %
Manu 12	5.6 %	8.7 %

The Authority of the Arthaśāstra

I have argued that the *Kauṭilīya Arthaśāstra* while compiled by a single person, has no one *creator*. And in this it is no different from any number of ancient Indian scientific treatises, whether the *Kāmasūtra*, or the *Manu Smṛti*, or the *Caraka Saṃhitā*. In the absence of the works of their predecessors it is difficult to assess the achievement of any individual author of antiquity. I believe it true to say that the 'author' of the *Arthaśāstra is* his predecessors, and that his personality as inferred from the work is a composite picture to which three or four different individuals have contributed, one a nose, another the hair, another the eyes.

To judge the *Arthaśāstra* the less for being the work of many, however, would be to weigh it in the scales of our own notions of individualism, creativity and genius, themselves the creatures of Romanticism. What the *Arthaśāstra* loses by way of individuality it gains by being seen as representative of the best of generations of thinkers. In its impersonal and abstract way it sums up ancient Indian beliefs about the state with an authority which no individual creation could possess.[1]

---

[1] Addendum on Pārasamudra (above, p. 178 ff.): For references to the place-name Parasamudda in Pali literature see now Senerat Paranavitana's *Ceylon and Malaysia* (Colombo, 1966), pp. 7, 8, 174. The author accepts the view that the Greek sources show that Pārasamudra was an early Indian name for Ceylon, but contends that in the *Arthaśāstra* and in the later Pali contexts the name has been transferred to Malaysia, with which Ceylon had developed a sea-borne trade. In particular he asserts that the Pārasamudraka aloes of the *Arthaśāstra* are products of Malaysia but not of Ceylon. If Paranavitana is correct that Pārasamudra in our text is Malaysia, not merely would a post-Christian date for the *Arthaśāstra* be confirmed, but a date even later than the brackets provided by the Greek sources, in which Pārasamudra is still Ceylon, would be required. But the *Arthaśāstra* is linked to the times of the Greek sources by the mention of coral from Alexandria, and so the commentator who identifies its Pārasamudra with Ceylon is more likely to be correct than Paranavitana who identifies it with Malaysia.

APPENDIX

STATISTICAL TABLES

APPENDIX TABLE 1

Distribution of particles in Kalhaṇa, in all verses and
omitting dialogue

(a) *All Verses*

1. atas

Bk.	1	3	4	5	6	7	8
0	298	299	299	300	299	300	298
1	2	1	1	—	1	—	2

2. atra

Bk.	1	3	4	5	6	7	8
0	295	298	295	300	298	300	300
1	5	2	5	—	2	—	—

3. atha

Bk.	1	3	4	5	6	7	8
0	278	256	287	285	276	290	286
1	22	44	13	15	24	10	14

4. api

Bk.	1	3	4	5	6	7	8
0	248	254	253	267	264	245	233
1	50	43	38	28	32	53	57
2	1	3	9	5	4	1	9
3	1	—	—	—	—	1	1

5. iti

Bk.	1	3	4	5	6	7	8
0	280	256	275	277	268	292	276
1	19	41	24	20	31	8	23
2	1	3	1	3	1	—	1

6. iva

Bk.	1	3	4	5	6	7	8
0	278	270	258	274	279	282	267
1	21	29	41	23	19	18	32
2	1	1	1	3	2	—	1

7. iha

Bk.	1	3	4	5	6	7	8
0	299	300	300	300	300	298	300
1	1	—	—	—	—	2	—

8. eva

Bk.	1	3	4	5	6	7	8
0	285	274	273	273	273	286	273
1	14	25	27	27	23	13	25
2	1	1	—	—	4	1	2

9. evam

Bk.	1	3	4	5	6	7	8
0	293	291	292	293	295	294	294
1	7	9	8	7	5	6	6

10. khalu

Bk.	1	3	4	5	6	7	8
0	300	299	300	300	300	300	300
1	—	1	—	—	—	—	—

11. ca

Bk.	1	3	4	5	6	7	8
0	272	253	267	270	267	266	265
1	24	40	25	29	31	26	34
2	4	4	7	1	2	5	1
3	—	3	1	—	—	2	—
4	—	—	—	—	—	1	—

12. cet

Bk.	1	3	4	5	6	7	8
0	300	298	298	300	299	300	298
1	—	2	2	—	1	—	2

13. tatas

Bk.	1	3	4	5	6	7	8
0	280	278	274	286	281	273	283
1	20	22	26	14	19	27	16
2	—	—	—	—	—	—	1

14. tatra

Bk.	1	3	4	5	6	7	8
0	291	289	278	291	293	287	294
1	9	11	21	8	7	13	6
2	—	—	1	1	—	—	—

15. tathā

Bk.	1	3	4	5	6	7	8
0	295	297	291	294	288	297	291
1	5	3	9	6	12	3	9

16. tadā

Bk.	1	3	4	5	6	7	8
0	289	296	298	298	292	297	294
1	11	4	2	2	8	3	6

17. tāvat

Bk.	1	3	4	5	6	7	8
0	299	298	299	297	296	295	299
1	1	2	1	3	4	5	1

18. tu

Bk.	1	3	4	5	6	7	8
0	290	293	291	293	289	293	285
1	10	7	9	7	10	7	15
2	—	—	—	—	1	—	—

19. na

Bk.	1	3	4	5	6	7	8
0	271	242	265	277	273	275	250
1	27	49	27	19	24	25	47
2	2	6	4	3	3	—	1
3	—	1	1	1	—	—	2
4	—	1	2	—	—	—	—
5	—	—	1	—	—	—	—
6	—	—	—	—	—	—	—
7	—	1	—	—	—	—	—

20. nanu

Bk.	1	3	4	5	6	7	8
0	300	300	299	300	300	300	300
1	—	—	1	—	—	—	—

21. nāma

Bk.	1	3	4	5	6	7	8
0	293	297	295	298	299	293	295
1	7	3	5	2	1	7	5

22. punar

Bk.	1	3	4	5	6	7	8
0	292	295	295	297	292	287	295
1	8	5	5	2	8	12	4
2	—	—	—	1	—	1	—

23. yatas

Bk.	1	3	4	5	6	7	8
0	300	299	299	299	299	300	300
1	—	1	1	1	1	—	—

24. yatra

Bk.	1	3	4	5	6	7	8
0	289	300	294	297	297	299	299
1	11	—	6	2	3	1	1
2	—	—	—	1	—	—	—

25. yathā

Bk.	I	3	4	5	6	7	8
0	294	294	297	294	293	298	295
I	6	6	3	6	7	2	5

26. yadā

Bk.	I	3	4	5	6	7	8
0	295	298	299	300	298	300	297
I	5	2	1	—	2	—	3

27. yadi

Bk.	I	3	4	5	6	7	8
0	296	297	298	300	299	300	299
I	4	3	2	—	1	—	1

28. yāvat

Bk.	I	3	4	5	6	7	8
0	99	297	299	298	297	297	299
I	21	3	1	2	3	3	1

29. vā

Bk.	I	3	4	5	6	7	8
0	297	288	292	297	297	299	295
I	3	11	6	3	3	1	5
2	—	1	2	—	—	—	—

30. vai

Bk.	I	3	4	5	6	7	8
0	300	300	300	299	300	300	300
I	—	—	—	1	—	—	—

31. .ha

Bk.	I	3	4	5	6	7	8
0	298	299	300	300	300	300	300
I	2	1	—	—	—	—	—

32. hi

Bk.	1	3	4	5	6	7	88
0	294	297	294	298	297	298	289
1	6	3	6	2	3	2	11

(b) *Without Dialogue*

3. atha

Bk.	1	3	4	5	6	7	8
0	239	129	199	250	242	279	259
1	22	36	11	14	20	10	14

4. api

Bk.	1	3	4	5	6	7	8
0	217	140	184	239	232	236	210
1	42	24	21	22	26	51	54
2	1	1	5	3	4	1	8
3	1	—	—	—	—	1	1

5. iti

Bk.	1	3	4	5	6	7	8
0	248	144	191	246	237	284	256
1	13	21	18	18	25	5	17
2	—	—	1	—	—	—	—

6. iva

Bk.	1	3	4	5	6	7	8
0	241	145	175	240	241	271	240
1	19	19	34	21	19	18	32
2	1	1	1	3	2	—	1

8. eva

Bk.	1	3	4	5	6	7	8
0	250	153	196	244	238	277	248
1	10	12	14	20	21	11	23
2	1	—	—	—	3	1	2

13

APPENDIX

9. evam

Bk.	1	3	4	5	6	7	8
0	256	161	205	258	259	283	269
1	5	4	5	6	3	6	4

11. ca

Bk.	1	3	4	5	6	7	8
0	237	139	182	238	231	255	243
1	20	22	21	25	30	26	30
2	4	2	6	1	1	5	—
3	—	2	1	—	—	2	—
4	—	—	—	—	—	1	—

13. tatas

Bk.	1	3	4	5	6	7	8
0	242	149	191	251	248	262	259
1	19	16	19	13	14	27	14

14 tatra

Bk.	1	3	4	5	6	7	8
0	252	157	197	255	256	277	267
1	9	8	13	8	6	12	6
2	—	—	—	1	—	—	—

15. tathā

Bk.	1	3	4	5	6	7	8
0	258	164	203	259	251	286	267
1	3	1	7	5	11	3	6

16. tadā

Bk.	1	3	4	5	6	7	8
0	251	163	209	262	255	286	268
1	10	2	1	2	7	3	5

18. tu

Bk.	1	3	4	5	6	7	8
0	252	163	205	259	256	284	261
1	9	2	5	5	5	5	12
2	—	—	—	—	1	—	—

19. na

Bk.	1	3	4	5	6	7	8
0	239	142	195	250	238	267	226
1	22	18	12	12	22	22	44
2	—	3	2	2	2	—	1
3	—	1	—	—	—	—	2
4	—	1	—	—	—	—	—
5	—	—	1	—	—	—	—

22. punar

Bk.	1	3	4	5.	6	7	8
0	255	161	208	261	256	276	269
1	6	4	2	2	6	12	3
2	—	—	—	1	—	1	1

25. yathā

Bk.	1	3	4	5	6	7	8
0	256	164	208	260	256	287	270
1	5	1	2	4	6	2	3

29. vā

Bk.	1	3	4	5	6	7	8
0	259	160	207	262	259	288	268
1	2	4	2	2	3	1	5
2	—	1	1	—	—	—	—

APPENDIX TABLE 2

Distribution of particles in Jonarāja and the *Mānasollāsa*

Jonarāja   *Mānasollāsa*

1. atas

Sample 1	2	3	Bk. 2	3	4	5
0	298	295	300	300	300	298	300
1	2	5	—	—	—	2	—

2. atra

Sample 1	2	3	Bk. 1	3	4	5
0	297	300	295	294	300	299	300
1	3	—	4	6	—	1	—
2	—	—	1	—	—	—	—

3. atha

Sample 1	2	3	Bk. 1	3	4	5
0	259	270	276	297	296	295	297
1	41	30	22	3	4	5	3
2	—	—	2	—	—	—	—

4. api

Sample 1	2	3	Bk. 2	3	4	5
0	271	256	250	278	287	280	285
1	24	39	48	19	13	20	13
2	5	5	2	2	—	—	2
3	—	—	—	1	—	—	—

5. iti

Sample 1	2	3	Bk. 2	3	4	5
0	287	273	286	288	292	292	294
1	13	27	13	10	8	8	6
2	—	—	1	2	—	—	—

Jonarāja | *Mānasollāsa*

6. iva

Sample 1	2	3	Bk.2	3	4	5
0	251	240	246	298	299	295	284
1	44	52	50	2	1	5	14
2	5	6	3	—	—	—	2
3	—	1	1	—	—	—	—
4	—	1	—	—	—	—	—

(columns: Sample 1, 2, 3 | Bk.2, 3, 4, 5)

7. iha

	Sample 1	2	3	Bk.2	3	4	5
0	300	300	300	300	300	300	300
1	—	—	—	—	—	—	—

8. eva

	Sample 1	2	3	Bk.2	3	4	5
0	277	268	279	286	277	279	282
1	23	31	20	12	21	19	17
2	—	1	1	2	2	2	1

9. evam

	Sample 1	2	3	Bk.2	3	4	5
0	295	296	293	291	285	289	291
1	5	4	7	9	14	11	9
2	—	—	—	—	1	—	—

10. khalu

	Sample 1	2	3	Bk.2	3	4	5
0	300	300	300	300	300	300	300
1	—	—	—	—	—	—	—

11. ca

	Sample 1	2	3	Bk.2	3	4	5
0	273	265	277	214	222	230	214
1	22	32	22	60	57	58	67
2	4	3	—	20	15	7	10
3	1	—	—	5	6	5	9
4	—	—	—	—	—	—	—
5	—	—	1	1	—	—	—

APPENDIX

| Jonarāja | | | | | Mānasollāsa | | |

12. cet

Sample 1	2	3	Bk. 2	3	4	5
0	300	299	297	298	298	291	300
1	—	1	3	2	2	8	—
2	—	—	—	—	—	—	—
3	—	—	—	—	—	1	—

13. tatas

Sample 1	2	3	Bk. 2	3	4	5
0	280	278	282	288	266	289	272
1	19	22	17	11	31	11	28
2	1	—	—	1	3	—	—
3	—	—	1	—	—	—	—

14. tatra

Sample 1	2	3	Bk. 2	3	4	5
0	293	291	286	292	294	298	292
1	7	9	14	8	6	2	8

15. tathā

Sample 1	2	3	Bk. 2	3	4	5
0	297	292	294	280	272	264	274
1	3	8	6	20	25	34	25
2	—	—	—	—	3	2	1

16. tadā

Sample 1	2	3	Bk. 2	3	4	5
0	289	289	288	297	300	299	297
1	10	11	12	3	—	1	3
2	1	—	—	—	—	—	—

17. tāvat

Sample 1	2	3	Bk. 2	3	4	5
0	295	296	299	298	297	300	300
1	5	4	1	2	3	—	—

Jonarāja   *Mānasollāsa*

18. tu

Sample 1	2	3	Bk. 2	3	4	5
0	291	283	289	275	267	271	290
1	8	14	11	23	32	26	9
2	1	3	—	2	1	3	1

19. na

Sample 1	2	3	Bk. 2	3	4	5
0	267	254	266	293	292	295	296
1	25	43	29	7	7	5	3
2	7	3	4	—	—	—	1
3	1	—	—	—	1	—	—
4	—	—	1	—	—	—	—

20. nanu

Sample 1	2	3	Bk. 2	3	4	5
0	300	300	298	300	300	300	300
1	—	—	2	—	—	—	—

21. nāma

Sample 1	2	3	Bk. 2	3	4	5
0	297	300	300	299	298	289	299
1	3	—	—	1	2	11	1

22. punar

Sample 1	2	3	Bk. 2	3	4	5
0	297	297	294	298	297	295	299
1	2	2	6	1	3	3	1
2	1	1	—	1	—	2	---

23. yatas

Sample 1	2	3	Bk. 2	3	4	5
0	300	297	300	300	300	297	300
1	—	3	—	—	—	3	—

	Jonarāja				*Mānasollāsa*		

24. yatra

Sample	1	2	3	Bk. 2	3	4	5
0	297	299	294	298	299	289	300
1	3	1	6	2	1	10	—
2	—	—	—	—	—	1	—

25. yathā

Sample	1	2	3	Bk. 2	3	4	5
0	299	295	292	298	295	298	297
1	1	5	8	2	5	2	3

26. yadā

Sample	1	2	3	Bk. 2	3	4	5
0	299	300	299	300	299	299	298
1	1	—	1	—	1	1	2

27. yadi

Sample	1	2	3	Bk. 2	3	4	5
0	300	295	300	298	299	298	300
1	—	5	—	2	1	2	—

28. yāvat

Sample	1	2	3	Bk. 2	3	4	5
0	299	300	299	299	289	299	298
1	1	—	1	1	11	1	2

29. vā

Sample	1	2	3	Bk. 2	3	4	5
0	297	292	294	290	287	287	283
1	3	7	4	6	9	12	12
2	—	1	2	3	3	1	3
3	—	—	—	—	1	—	—
4	—	—	—	—	—	—	2
5	—	—	—	—	—	—	—
6	—	—	—	1	—	—	—

Jonarāja   *Mānasollāsa*

30. vai

Sample 1	2	3	Bk. 2	3	4	5
0	300	300	300	300	300	300	300
1	—	—	—	—	—	—	—

31. ha

Sample 1	2	3	Bk. 2	3	4	4
0	300	300	300	300	300	300	300
1	—	—	—	—	—	—	—

32. hi

Sample 1	2	3	Bk. 2	3	4	5
0	294	288	291	294	294	297	300
1	6	11	9	6	6	3	—
2	—	1	—	—	—	—	—

APPENDIX TABLE 3

Distribution of particles in 20-word blocks in Somadeva and Gaṅgeśa

Somadeva   **Gaṅgeśa**

1. atas

Sample	1	2	3	4	5		Bk.	1	2	4
0	92	91	104	101	109			109	180	160
1	—	1	2	—	—			17	23	22
total	92	92	106	101	109			126	203	182

2. atra

Sample	1	2	3	4	5		Bk.	1	2	4
0	92	92	106	101	108			120	183	157
1	—	—	—	—	1			6	17	19
2	—	—	—	—	—			—	2	6
3	—	—	—	—	—			—	1	—

3. atha

Sample	1	2	3	4	5		Bk.	1	2	4
0	91	92	105	101	109			120	187	166
1	1	—	1	—	—			6	16	16

4. api

Sample	1	2	3	4	5		Bk.	1	2	4
0	53	53	58	61	69			53	105	92
1	29	32	33	31	32			53	68	65
2	9	5	13	8	6			15	26	17
3	1	2	2	1	2			5	4	7
4	—	—	—	—	—			—	—	1

5. iti

Sample	1	2	3	4	5		Bk.	1	2	4
0	81	82	83	89	89			38	73	38
1	8	10	18	11	17			62	92	83
2	3	—	3	1	2			23	32	44
3	—	—	2	—	1			3	6	15
4	—	—	—	—	—			—	—	2

Somadeva   Gaṅgeśa

6. iva

Sample	1	2	3	4	5	Bk.	1	2	4
0	70	66	87	92	82		121	198	171
1	18	20	16	9	21		5	5	11
2	4	2	1	—	6		—	—	—
3	—	—	2	—	—		—	—	—
4	—	3	—	—	—		—	—	—
5	—	1	—	—	—		—	—	—

7. iha

Sample	1	2	3	4	5	Bk.	1	2	4
0	91	91	106	100	108		122	200	180
1	—	1	—	1	1		4	3	2
2	1	—	—	—	—		—	—	—

8. eva

Sample	1	2	3	4	5	Bk.	1	2	4
0	75	73	90	85	91		62	120	105
1	17	15	16	15	12		45	56	61
2	—	4	—	1	4		14	23	12
3	—	—	—	—	2		4	4	3
4	—	—	—	—	—		1	—	1

9 evam

Sample	1	2	3	4	5	Bk.	1	2	4
0	92	92	106	101	109		116	178	169
1	—	—	—	—	—		9	22	11
2	—	—	—	—	—		1	2	2
3	—	—	—	—	—		—	1	—

10. khalu

Sample	1	2	3	4	5	Bk.	1	2	4
0	74	82	100	96	105		125	203	182
1	18	10	4	4	3		1	—	—
2	—	—	2	1	1		—	—	—

Somadeva   Gaṅgeśa

11. ca

Sample 1	2	3	4	5	Bk. 1	2	4
0	60	57	59	62	67	44	64	62
1	21	30	36	30	36	50	85	77
2	9	5	10	8	6	25	38	33
3	2	—	1	1	—	7	13	8
4	—	—	—	—	—	—	3	2

12. cet

Sample 1	2	3	4	5	Bk. 1	2	4
0	92	91	106	101	108	101	171	139
1	—	1	—	—	—	25	32	40
2	—	—	—	—	—	1	—	3

13. tatas

Sample 1	2	3	4	5	Bk. 1	2	4
0	91	91	104	101	109	125	200	172
1	1	1	1	—	—	1	2	10
2	—	—	—	—	—	—	1	—
3	—	—	1	—	—	—	—	—

14. tatra

Sample 1	2	3	4	5	Bk. 1	2	4
0	91	90	104	100	104	105	166	159
1	1	2	2	1	5	18	30	22
2	—	—	—	—	—	3	7	1

15. tathā

Sample 1	2	3	4	5	Bk. 1	2	4
0	91	87	103	97	107	100	162	163
1	1	5	3	4	2	25	34	18
2	—	—	—	—	—	1	6	1
3	—	—	—	—	—	—	1	—

16. tadā

Sample 1	2	3	4	5	Bk. 1	2	4
0	92	91	105	101	109	120	197	176
1	—	1	1	—	—	6	5	6
2	—	—	—	—	—	—	1	—

Somadeva Gaṅgeśa

17. tāvat

Sample 1	2	3	4	5	Bk. 1	2	4
0	92	91	104	101	104	124	199	176
1	—	1	2	—	5	2	4	4
2	—	—	—	—	—	—	—	1
3	—	—	—	—	—	—	—	1

18. tu

Sample 1	2	3	4	5	Bk. 1	2	4
0	88	91	101	93	106	93	147	129
1	4	1	5	8	3	30	50	48
2	—	—	—	—	—	3	6	5

19. na

Sample 1	2	3	4	5	Bk. 1	2	4
0	46	31	50	21	46	32	48	40
1	26	42	30	44	34	46	66	77
2	17	14	20	24	22	28	63	54
3	3	5	4	8	7	19	25	8
4	—	—	2	2	—	1	1	3
5	—	—	—	2	—	—	—	—

20. nanu

Sample 1	2	3	4	5	Bk. 1	2	4
0	92	92	106	101	109	113	195	171
1	—	—	—	—	—	13	8	11

21. nāma

Sample 1	2	3	4	5	Bk. 1	2	4
0	83	86	96	92	103	126	202	182
1	8	4	9	9	6	—	1	—
2	1	2	1	—	—	—	—	—

22. punar

Sample 1	2	3	4	5	Bk. 1	2	4
0	85	85	97	94	102	126	203	182
1	7	7	9	7	7	—	—	—

Somadeva | Gaṅgeśa

23. yatas

Sample	1	2	3	4	5		Bk.	1	2	4
0	86	91	103	101	109			125	203	181
1	6	1	3	—	—			1	—	1

24. yatra

Sample	1	2	3	4	5		Bk.	1	2	4
0	79	91	101	87	104			121	193	174
1	13	—	5	9	4			3	8	8
2	—	1	—	3	1			2	2	—
3	—	—	—	2	—			—	—	—

25. yathā

Sample	1	2	3	4	5		Bk.	1	2	4
0	91	87	102	99	107			116	185	177
1	1	5	4	2	2			9	15	5
2	—	—	—	—	—			1	3	—

26. yadā

Sample	1	2	3	4	5		Bk.	1	2	4
0	92	92	105	101	109			125	202	182
1	—	—	1	—	—			1	1	—

27. yadi

Sample	1	2	3	4	5		Bk.	1	2	4
0	91	87	105	98	101			191	195	175
1	1	4	1	3	6			6	8	7
2	—	1	—	—	2			1	—	—

28. yāvat

Sample	1	2	3	4	5		Bk.	1	2	4
0	92	91	105	101	104			124	200	181
1	—	1	1	—	4			2	3	1
2	—	—	—	—	1			—	—	—

Somadeva | Gaṅgeśa

29. vā

Sample 1	2	3	4	5	Bk. 1	2	4
0	72	63	87	76	86	102	161	144
1	19	23	18	16	20	18	33	33
2	—	5	1	8	3	4	8	33
3	—	1	—	1	—.	2	1	4
4	1	—	—	—	—	—	—	1

Note: The above table columns correspond to: Sample 1, 2, 3, 4, 5 (Somadeva); Bk. 1, 2, 4 (Gaṅgeśa).

	1	2	3	4	5	Bk. 1	2	4
0	72	63	87	76	86	102	161	144
1	19	23	18	16	20	18	33	33
2	—	5	1	8	3	4	8	4
3	—	1	—	1	—.	2	1	1
4	1	—	—	—	—	—	—	—

30. vai

Sample	1	2	3	4	5	Bk. 1	2	4
0	91	91	106	101	109	126	203	182
1	1	1	—	—	—	—	—	—

31. ha

Sample	1	2	3	4	5	Bk. 1	2	4
0	70	78	92	90	89	126	203	182
1	21	12	13	10	20	—	—	^
2	1	2	1	1	—	—	—	—

32. hi

Sample	1	2	3	4	5	Bk. 1	2	4
0	70	78	92	90	89	119	159	168
1	21	12	13	10	20	7	42	13
2	1	2	1	1	—	—	2	1

APPENDIX TABLE 4

Distribution of five particles in five authors
Figures for Kalhaṇa are without dialogue

1. *eva*

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1606	824	1124	414	235
1	111	74	69	75	162
2	7	2	7	9	49
3	—	—	—	2	11
4	—	—	—	—	2

2. *evam*

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1691	884	1156	500	463
1	33	16	43	—	42
2	—	—	1	—	5
3	—	—	—	—	1

3. *ca*

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1535	815	880	305	170
1	174	76	242	153	212
2	19	7	52	38	96
3	5	1	25	4	28
4	1	—	—	—	5
5	—	1	1	—	—

4. *tatra*

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1661	870	1176	489	430
1	62	30	24	11	70
2	1	—	—	—	11

5. *vā*

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1703	883	1147	384	407
1	19	14	39	96	84
2	2	3	10	17	16
3	—	—	1	2	4
4	—	—	2	1	—
5	—	—	—	—	—
6	—	—	1	—	—

APPENDIX TABLE 5

Distribution of particles in 20-word blocks in three books
of the *Arthaśāstra*

1. *eva*

	Bk. 2a	2b	2c	2d	3a	3b	7a	7b
0	96	81	77	98	86	105	121	110
1	7	8	5	3	15	18	14	10
2	—	1	—	—	—	—	—	—
total	103	90	82	101	101	123	135	120

2. *evam*

	Bk. 2a	2b	2c	2d	3a	3b	7a	7b
0	102	89	81	94	99	122	128	113
1	1	1	1	7	2	1	7	7

3. *ca*

	Bk. 2a	2b	2c	2d	3a	3b	7a	7b
0	34	27	23	22	54	51	86	69
1	41	31	25	37	30	43	34	28
2	18	20	19	22	13	21	13	17
3	10	10	8	12	4	5	1	5
4	—	2	7	7	—	3	1	1
5	—	—	—	1	—	—	—	—

4. *tatra*

	Bk. 2a	2b	2c	2d	3a	3b	7a	7b
0	91	88	82	99	99	119	131	114
1	9	2	—	2	2	4	4	6
2	3	—	—	—	—	—	—	—

5. *vā*

	Bk. 2a	2b	2c	2d	3a	3b	7a	7b
0	63	46	45	57	43	50	36	52
1	28	23	24	34	38	46	44	35
2	9	13	9	9	13	16	28	18
3	2	6	4	1	5	9	22	6
4	1	1	—	—	2	1	4	9
5	—	1	—	—	—	1	1	—

14

APPENDIX TABLE 6

Distribution of particles in 20-word blocks in the *Arthaśāstra*

1. *eva*

	Bk. 1	2	3	4	5	6	7
0	148	352	191	129	74	19	231
1	10	23	33	17	18	2	24
2	—	1	—	2	1	—	—
total	158	376	224	148	93	21	255

	Bk. 8	9	10	11	12	13	14
0	73	118	61	22	68	75	49
1	4	10	5	—	3	8	4
2	1	—	1	—	1	1	—
total	78	128	67	22	72	84	53

2. *evam*

	Bk. 1	2	3	4	5	6	7
0	147	366	221	145	84	18	241
1	9	10	3	3	7	3	14
2	—	—	—	—	2	—	—
3	2	—	—	—	—	—	—

	Bk. 8	9	10	11	12	13	14
0	78	124	60	19	68	83	52
1	—	4	7	2	3	1	1
2	—	—	—	1	1	—	—

3. *ca*

	Bk. 1	2	3	4	5	6	7
0	57	106	104	64	46	12	115
1	51	134	73	58	23	7	62
2	27	79	34	22	14	2	30
3	19	40	9	4	8	—	6
4	4	16	3	—	2	—	2
5	—	1	—	—	—	—	—

Bk. 8	9	10	11	12	13	14
0	28	70	33	14	39	46	34
1	27	42	19	5	19	18	16
2	14	9	8	2	10	7	2
3	8	6	4	1	3	10	1
4	1	1	2	—	1	2	—
5	—	—	1	—	—	1	—

4. *tatra*

Bk. 1	2	3	4	5	6	7
0	151	360	218	146	89	20	245
1	7	13	6	2	4	1	10
2	—	3	—	—	—	—	—

Bk. 8	9	10	11	12	13	14
0	77	120	65	22	69	84	51
1	1	8	2	—	3	—	2

5. *vā*

Bk. 1	2	3	4	5	6	7
0	105	211	93	56	27	12	88
1	31	109	84	46	32	6	79
2	17	40	29	26	16	1	46
3	2	13	14	15	15	1	28
4	2	2	3	4	1	1	13
5	1	1	1	1	2	—	1

Bk. 8	9	10	11	12	13	14
0	51	50	33	3	19	22	24
1	23	32	20	10	13	24	18
2	2	29	11	7	21	26	8
3	2	14	3	1	8	9	3
4	—	3	—	—	7	3	—
5	—	—	—	1	4	—	—

14*

APPENDIX TABLE 7

Compound-length distributions in the *Arthaśāstra*

(a) Books 2, 3, 7

Members	Bk. 2a	2b	2c	2d	3a	3b	7a	7b
2	475	451	409	582	424	460	464	439
3	130	109	127	131	96	123	97	121
4	57	31	22	52	32	45	32	38
5	20	15	18	23	7	9	9	18
6	13	7	10	14	6	11	3	4
7	8	4	9	12	3	5	2	6
8	7	6	6	5	5	1	2	1
9	2	2	6	5	—	4	—	2
10	3	1	2	6	1	1	—	—
11	1	—	2	—	—	1	—	—
12	2	2	2	1	1	—	1	1
13	2	—	1	—	—	—	—	—
14	—	1	2	—	—	—	—	—
15	1	1	4	2	—	—	—	—
16	—	—	1	—	—	—	—	—
17	—	1	—	1	—	—	—	—
18	—	—	—	—	—	—	—	1
19	—	—	—	1	—	—	—	—
20	—	—	—	1	—	—	—	—
21	—	—	—	1	—	—	—	—
22	—	—	—	—	—	—	—	—
23	1	—	1	—	—	—	—	—
24	—	—	—	—	—	—	—	—
25	—	—	2	—	—	—	—	—
26	—	—	—	—	—	—	—	—
27	1	—	—	—	—	—	—	—

(b) All Books

Members	Bk. 1	2	3	4	5	6	7
2	535	1917	884	593	330	108	903
3	184	497	219	206	101	33	218
4	47	162	77	54	33	5	70
5	21	76	16	27	9	4	27
6	14	44	17	11	4	1	7
7	7	33	8	12	4	3	8
8	5	24	6	7	2	2	3
9	—	15	4	2	3	1	2
10	3	12	2	—	1	1	—
11	—	3	1	1	1	—	—
12	—	7	1	—	—	—	2

Members	Bk. 1	2	3	4	5	6	7
13	—	3	—	—	4	—	—
14	—	3	—	—	—	—	—
15	—	8	—	—	—	—	—
16	—	1	—	—	—	—	—
17	—	2	—	—	—	—	—
18	—	—	—	—	—	—	1
19	—	1	—	—	—	—	—
20	—	1	—	—	—	—	—
21	—	1	—	—	—	—	—
22	—	—	—	—	—	—	—
23	—	2	—	—	—	—	—
24	—	—	—	—	—	—	—
25	—	2	—	—	—	—	—
26	—	—	—	—	—	—	—
27	1	1	—	—	—	—	—
28	—	—	—	1	—	—	—

Members	Bk. 8	9	10	11	12	13	14
2	344	433	263	75	234	272	219
3	114	123	99	21	52	98	89
4	32	29	38	6	17	36	35
5	13	12	14	3	4	16	18
6	6	1	6	1	6	7	14
7	4	5	3	—	2	2	5
8	1	—	2	1	—	3	9
9	2	1	1	—	—	1	6
10	—	1	1	—	—	2	2
11	—	—	—	—	—	2	2
12	—	—	1	—	—	—	—
13	—	—	—	—	—	—	—
14	—	1	—	—	—	—	—
15	—	—	—	—	—	—	—
16	—	—	—	—	—	—	1

APPENDIX TABLE 8

Distribution of particles in 20-word blocks in Vāstyāyana's *Kāmasūtra*

1. *eva*

	Bk. 1	2	3	4	5	6	7
0	51	99	70	40	82	100	28
1	13	37	16	4	29	17	15
2	5	9	2	2	3	—	—
3	—	—	—	—	1	—	—
total	69	145	88	46	115	117	43

2. *evam*

	Bk. 1	2	3	4	5	6	7
0	66	141	83	46	110	115	42
1	3	4	5	—	5	2	1

3. *ca*

	Bk. 1	2	3	4	5	6	7
0	17	52	17	8	25	41	16
1	21	54	20	14	35	36	20
2	15	25	26	9	36	26	5
3	12	12	17	7	17	9	2
4	4	1	8	7	2	4	—
5	—	1	—	1	—	1	—

4. *tatra*

	Bk. 1	2	3	4	5	6	7
0	62	107	77	43	95	103	41
1	6	33	7	3	18	13	1
2	1	4	4	—	2	1	1
3	—	1	—	—	—	—	—

5. *vā*

	Bk. 1	2	3	4	5	6	7
0	46	113	71	34	92	71	34
1	15	26	13	11	18	26	8
2	7	5	3	1	5	14	1
3	1	1	1	—	—	5	—
4	—	—	—	—	—	—	—
5	—	—	—	—	—	1	—

APPENDIX TABLE 9

Compound-length distribution in the *Kāmasūtra*

Members	Bk. 1	2	3	4	5	6	7
2	272	535	254	145	414	421	144
3	62	111	68	35	108	72	38
4	10	25	12	9	21	11	19
5	13	7	2	8	9	3	7
6	1	4	1	4	1	—	4
7	—	1	1	1	2	1	1
8	1	—	1	3	—	—	—
9	2	1	3	—	1	1	1
10	—	—	—	—	—	2	2
11	—	1	—	—	—	3	—
12	—	2	—	1	—	—	—
13	—	—	—	—	—	1	—
14	—	—	—	—	—	—	—
15	1	—	—	—	—	—	1
. . .							
20	—	—	—	—	—	1	—
21	—	—	—	—	1	—	—
22	—	—	—	1	—	—	—

BIBLIOGRAPHY OF WORKS CITED

I. Ancient Texts and Translations.
   A. The *Kauṭilīya Arthaśāstra*.
   B. Other Indic Works.
   C. Classical Works.

II. Modern Works.
   A. Works on Kauṭilya and the *Arthaśāstra*.
   B. Statistical Authorship Studies.
   C. Other Works.

I. ANCIENT TEXTS AND TRANSLATIONS

A. The *Kauṭilīya Arthaśāstra*

"Chanakya's Land and Revenue Policy" (extracts of *Arthaśāstra*), trans. R. Shamasastry, *IA 34*, 1905, pp. 5-10, 47-59, 110-119.

"The Arthasastra of Chanakya, Books I-IV", trans. R. Shamasastry, *Mysore Review*, 1906-08.

"The Arthasastra of Chanakya, Books V-XV", trans. R. Shamasastry, *IA 38*, 1909, pp. 257-64, 277-84, 303-10.

Arthaśāstra of Kauṭilya, ed. R. Shama Sastri (*Bibliotheca Sanskrita*, vol. 37), Mysore, 1909. 2nd ed., 1919, 3rd ed., 1924, 4th ed. (*Kauṭilīyārthaśāstra of Śrī Viṣṇugupta*), rev. by N.S. Venkatanathacharya, 1960.

The Arthaśāstra of Kauṭilya, trans. R. Shamasastry, Bangalore, 1915. 6th ed., 1960.

The Arthaśāstra of Kauṭilya, ed. J. Jolly and R. Schmidt, vol. 1, Text, (*Punjab S.S.* no. 4) Lahore, 1923. (Cited as Jolly-Schmidt) Vol. 2, Notes with the Commentary *Nayacandrikā* of M. M. Mādhavayajvan (*Punjab S.S.*), 1924.

The Arthaśāstra of Kauṭalya, ed. by and with the Commentary *Śrīmūla* of T. Ganapati Sastri, 3 Parts (*TSS*, nos. 79, 80, 82), Trivandrum, 1924-5.

Das altindische Buch von Welt- und Staatsleben: Das Arthaçāstra des Kauṭilya, trans. into German by J. J. Meyer, 6 Parts, Hannover and Leipzig, 1925-6. Cited as Meyer.

Arthaśāstra-vyākhyā Jayamaṅgalā, ed. G. Harihara Sastri (Kuppaswami Sastri Research Institute), Madras, 1958.

A Fragment of the Koutalya's Arthaśāstra alias Rājasiddhānta with the Fragment of the Commentary named *Nītinirṇīti* by Āchārya Yogghama alias Mughdhavilāsa, ed. Muni Jina Vijay, Preface by D. D. Kosambi, Bombay, 1959.

The Kauṭilīya Arthaśāstra, Part 1 (Text), ed. R. P. Kangle, Bombay, 1960. Cited as Kangle, Part 1.

———, Part 2, trans. R. P. Kangle, 1963. Cited as Kangle, Part 2.

B. *Other Indic Works*

Uttarādhyāyanasūtra   *The Uttarādhyāyanasūtra*, ed. Jarl Charpentier (*Archives d'études orientales*, vol. 18), Uppsala, 1922.

[M]	*Kathāsaritsāgara*	*The Kathāsaritsāgara of Somadeva*, ed. Pt. Durgā-prasād and Kāśināth Pāndurang Parab, 4th ed., rev. by Wāsudev Laxmaṇ Śāstrī Paṇśikar, Bombay, 1930. Cited as *KSS*.
		The Ocean of Story (Somadeva's Kathāsaritsāgara), trans. C. H. Tawney and ed. N. M. Penzer, vols. 1, 2, 5 and 7, London, 1924-1927. Cited as *KSS* trans.
[M]	*Kāmasūtra*	*The Kāmasūtra by Srī Vātsyāyana Muni* with the Commentary *Jayamaṅgala* of Yashodhar, ed. Sāhityādarshanāchārya Tarkaratna Nyāyaratna Srī Gosvāmī Dāmodar Shastri (*Kāshi S.S.* no. 29), Benares, 1929.
		The Kāma-Sūtra (or the Science of Love) of Sri Vātsyāyana, trans. K. Rangaswami Iyengar, Lahore, 1921.
		Das Kāmasūtram, trans. into German by Richard Schmidt, 3rd ed., Berlin, 1907.
	Cāṇakyakathā	*Cāṇakyakathā of Ravinartaka*, ed. with Bengali trans. by Satish Churn Law (*Calcutta O.S.* no. 6), Calcutta, 1921.
	Tattvacintāmaṇi	*Tattvacintāmaṇi* of Gaṅgeśa, ed. Pt. Kāmākhyānātha Tarkavāgīśa, Parts I, II, and IV, vol. 1 (*Bibl. Ind.* N.S. nos. 512, etc.), Calcutta, 1888-1901.
	Daśakumāracarita	*The Daśakumāracharita of Daṇḍin*, pt. 1, ed. Georg Bühler (*BSS* no. 10), Bombay, 1887; pt. 2, ed. Peter Peterson (*BSS* no. 42), Bombay, 1887.
	Nītivākyāmṛta	*Nītivākyāmṛtam* of Somadeva Sūri, ed. Srīmat Pt. Pannālāla Sonī, 2 vols. (*Māṇikacandra-Digambara-Jaina-Granthamālā* nos. 22, 34), Bombay, Saṃvat 1979, 89 (A.D. 1923, 1933).
	Nītisāra	*The Kāmandakīya Nītisāra* with the Commentary *Jayamaṅgalā* of Saṅkarārya, ed. T. Ganapati Sastri (*TSS* no. 14), Trivandrum, 1912.
	Pañcatantra	*The Pañcatantra Reconstructed*, 2 vols., ed. and trans. Franklin Edgerton (*American Oriental Series*, vols. 2 and 3), New Haven, Conn., 1924.
	Paramatthā Dīpanī	*Paramatthā Dīpanī: Theragāthā Aṭṭhakathā*, ed. F. L. Woodward, vol. 2 (PTS), London, 1952.
	Pariśiṣṭaparvan	See *Sthavirāvalīcarita*.
	Purāṇas	*The Purāṇa Text of the Dynasties of the Kali Age*, ed. and trans. F. E. Pargiter, Oxford, 1913. Historical portions of the Purāṇas.
	Bṛhatkathāmañjarī	*The Bṛhatkathāmañjarī of Kshemendra*, ed. MM. Pt. Śivadatta and Kāśināth Pāndurang Parab (*Kāvyamālā* no. 69), Bombay, 1901.
	Bhagavadgītā	*The Bhagavad-Gītā with the Commentary of Śri Śankarācārya*, 2nd ed., Dinkar Vishnu Gokhale (*Poona O.S.* no. 1), Poona, 1950.

Manusmṛti (*Mānavadharmaśāstra*)	*Mānava-Dharma-Śāstra*. Institutes of Manu, with the Commentaries of Medhātithi, Sarvajñarārāyaṇa, Kullūka, Rāghavānanda, Nandana and Rāmachandra, ed.Vishvanath Narayan Mandalik, Bombay, 1886.
	The Laws of Manu, trans. Georg Bühler (*SBE* vol. 25), Oxford, 1886.
	Manu Smṛti with the Bhāshya of Bhaṭṭa Medhātithi, ed. Jagannath R. Gharpure (*Collections of Hindu Law Texts* N.S. no. 9), Bombay, 1920.
	Manu-Smṛti. The Laws of Manu with the '*Manubhāṣya*' of Medhātithi, vol. 3, pt. 2, trans. Ganganatha Jha, Calcutta, 1924.
	Manu-Smṛti: Notes, ed. Ganganatha Jha (Part I: Textual), Calcutta, 1924.
	Manu-Smṛti with the '*Manubhāṣya*' of Medhātithi, ed. Ganganatha Jha, vols. 2 and 3 (*Bibl. Ind.* no. 256), Calcutta, 1939.
Mahāvaṃsa	*The Mahāvaṃsa*, ed. Wilhelm Geiger (PTS), London, 1908. Cited as *MV*.
	The Mahāvaṃsa, trans. Wilhelm Geiger and Mabel Haynes Bode (PTS), London, 1912.
Mahāvaṃsa Ṭīkā	See *Vaṃsatthappakāsinī*.
Mānasollāsa	*Mānasollāsa of King Someśvara*, ed. G. K. Shrigondekar, 3 vols. (*Gaekwad's O.S.* nos. 28, 84, 138), Baroda, 1925, 1939, 1961.
Mudrārākṣasa	*Mudrārākṣasa by Viśākhadatta*, ed. Alfred Hillebrandt (*Indische Forschungen* vol. 4), Breslau, 1912.
Mudrārākṣasa-pūrvasaṃkathānaka	*Mudrārākṣasapūrvasaṃkathānaka of Anantaśarman*, ed. Dasharatha Sharma (*Ganga O.S.* no. 3), Bikaner, 1945.
Yaśastilaka	*The Yaśastilaka of Somadeva Sūrī*, ed. MM. Paṇḍit Śivadatta and Kāshīnāth Pāndurang Parab (*Kāvyamālā* no. 70), 2 Parts, Bombay, 1901-03.
Rājataraṅgiṇī	*Kalhaṇa's Rājataraṅgiṇī or Chronicle of the Kings of Kashmir*, ed. M. A. Stein, vol. 1, Sanskrit Text with Critical Notes, Bombay, 1892.
	Kalhaṇa's Rājataraṅgiṇī, A Chronicle of the Kings of Kashmir, trans. M. A. Stein, 2 vols., Westminster, 1900.
	The Rājataraṅgiṇī of Kalhaṇa, ed. Durgāprasāda, son of Vrajalāla, vol. 3, containing the supplements of Jonarāja, Srīvara, and Prājyabhaṭṭa, ed. P. Peterson (*Bombay S.S.* no. 54), Bombay, 1896.
Vaṃsatthappakāsinī	*Vaṃsatthappakāsinī* (or *Mahāvaṃsa Ṭīkā*), ed. G. P. Malalasekera, vol. 1 (PTS), London, 1935. Cited as *MṬ*; references are to page and line.

Sthavirāvalīcarita   *Sthavirāvalīcarita or Pariśiṣṭaparvan*, ed. Hermann Jacobi, 2nd ed., (*Bibl. Ind.* no. 96), Calcutta, 1932. Cited as *PP*.

Hariharacaturaṅga   *Hariharacaturaṅgam* (of Godāvara Miśra), ed. S. K. Ramanatha Sastri (*Madras Government O.S.* no. 17, Government Oriental Manuscript Library), Madras, 1950.

Inscriptions   *Select Inscriptions*, ed. Dinesh Chandra Sircar, vol. 1, Calcutta, 1941.

C. *Classical Works*

General   *Die Fragmente der griechischen Historiker*, ed. Felix Jacoby, vols. 2B (texts) and 2D (commentary), Berlin, 1929-30. Cited as *FGH*.

The Invasion of India by Alexander the Great as Described by Arrian, Q. Curtius, Diodorus, Plutarch and Justin, trans. J. W. M'Crindle, Westminster, 1893.

The Classical Accounts of India (various translators), ed. R. C. Majumdar, Calcutta, 1960.

Arrian   *Arrian* (*Anabasis*), trans. E. Iliff Robson, vol. 2 (*Loeb Classical Library*), London and Cambridge, Mass., 1933.

Curtius   *Quintus Curtius*, trans. John C. Rolfe, vol. 2 (*Loeb*), London and Cambridge, Mass., 1946.

Diodorus   *Diodorus of Sicily*, trans. C. Bradford Welles, vol. 8 (*Loeb*), London and Cambridge, Mass., 1963.

Justin   *Iustinus: Trogi Pompei: Historiarum Philippicarum Epitoma*, ed. Justus Jeep (*Teubner, editio minor*), Leipzig, 1872.

M. Iuniani Iustini Epitoma Historiarum Philippicarum Pompei Trogi, ed. Otto Seel (*Teubner*), Leipzig, 1935.

Justin, Cornelius Nepos and Eutropius, trans. the Rev. John Selby Watson, London, 1853.

Marcianus   *Périple de Marcien d'Héraclée . . .* ed. E. Miller, Paris, 1839.

Megasthenes   *Ancient India as Described by Megasthenes and Arrian*, trans. by J. W. McCrindle, London, 1877.

Periplus   *Le Périple de la Mer Érythrée*, ed. Hjalmar Frisk (*Göteborgs Högskolas Arsskrift 33*), Göteborg, 1927.

Pliny   *Pliny: Natural History*, trans. H. Rackman, vol. 2 (*Loeb*), London and Cambridge, Mass., 1942.

Plutarch   *Plutarch's Lives*, trans. Bernadotte Perrin, vol. 7 (*Loeb*), London and New York, 1919.

Plutarch's Moralia, trans. Harold North Fowler, vol. 10 (*Loeb*), London and Cambridge, Mass., 1936.

Ptolemy   *Claudii Ptolomae Alexandrini: Geographiae . . .* ed. Gerardum Mercatorem, Amsterdam, 1605.

Stephanus   *Stephani Byzantii Ethnocoium*, vol. 1, ed. August Meineke, Berlin, 1849.

Strabo   *The Geography of Strabo*, trans. Horace Leonard Jones, vol. 7
                (*Loeb*), London and Cambridge, Mass., 1930.

II. MODERN WORKS
A. *Works on Kauṭilya and the Arthaśāstra*

Bhandarkar, R. G.: Presidential Address in *Proceedings and Transactions
of the First Oriental Conference, Poona*, vol. 1, p. 23 ff., Poona, 1920.

Breloer, B.: *Kauṭalīya Studien*, vol. 1: *Das Grundeigentum in Indien*; vol. 2:
Altindisches Privatrecht bei Megasthenes und Kauṭalya; vol. 3: *Finanz-
verwaltung und Wirtschaftsführung*, Bonn und Leipzig, 1927, 1928, 1934.

Derrett, J. Duncan M.: "A Newly-discovered Contact Between Artha-
śāstra and Dharmaśāstra: The Role of Bhāruci", *ZDMG 115*, 1965,
p. 134 ff.

Dwivedi, Gautam N.: "Geographical Data in the *Kauṭilīya Arthaśāstra*",
XXVI Congress of Orientalists, New Delhi, 1964.

——: "The Age of Kauṭilya", *Agra University Extension Lectures*, Agra,
1966.

Jacobi, Hermann: "Über die Echtheit des Kauṭilīya", *SKPAW*, 1912,
p. 832 ff. Trans. V. S. Sukthankar, *IA 47*, 1918, pp. 157-161, 187-195.

Johnston, E. H.: "Two Studies in the *Arthaśāstra* of Kauṭilya", *JRAS*,
1929, p. 77 ff.

Jolly, J.: "Lexikalisches aus dem Arthaśāstra", *Indo-Germanische For-
schungen, 31*, 1912-13, p. 204 ff.

——: "Kollektaneen zum Kauṭilīya Arthaśāstra", *ZDMG 68*, 1914, p. 345
ff.; *69*, 1915, p. 369 ff.

——: "Textkritische Bemerkungen zum Kauṭilīya Arthaśāstra", *ZDMG 70*,
1916, pp. 547-54; *71*, 1917, pp. 227-39; 414-28; *72*, 1918, pp. 209-23.

Kangle, R. P.: *The Kauṭilīya Arthaśāstra*, Part 3: A Study, Bombay, 1965.
Cited as Kangle, Part 3.

Keith, A. Barriedale: "The Authenticity of the *Kauṭilīya*", *JRAS*, 1916,
p. 130 ff.

Nath, Pran: "The Date of the Compilation of Kauṭalya's *Artha-Śāstra*
(484-510 A.D.)", *IA 60*, 1931, pp. 109-112, 121-123.

Raychaudhuri, Hemachandra: "Miscellanea", *IA 48*, 1919, p. 195 ff.

Renou, Louis: "Sur la forme de quelques textes sanskrits", *JA 249*, 1961,
p. 163 ff.; section 3, "Le Kauṭilīya", p. 183 ff.

Schlingloff, Dieter: "Arthaśāstra-Studien", *Wiener Zeitschrift für die Kunde
Sud- und Ostasiens 9*, 1965, p. 1 ff.

Shamasastry, R.: *Index Verborum to the Published Texts of the Kauṭilīya
Arthaśāstra*, 3 parts (*University of Mysore Oriental Library Publications,
S.S.* nos. 63, 65, 66), Mysore, 1924-5.

Stein, O.: *Megasthenes und Kauṭilya*, Vienna, 1921.

——: "Σῦριγξ und *suruṅgā*", *ZII 3*, 1925, p. 280 ff.

——: "Versuch einer Analyse des Śāsanādhikāra", *ZII 6*, 1928, p. 45 ff.

Trautmann, Thomas R.: "A Metrical Original for the *Kauṭilīya Arthaśāstra* ?",
JAOS 88, 1968, p. 347 ff.

Voigt, Johannes H.: "Nationalist Interpretations of Arthaśāstra in Indian Historical Writing", *St. Anthony's Papers*, no. 18, *South Asian Affairs*, no. 2, Oxford, 1966.

Wilhelm F.: *Politische Polemiken im Staatslehrbuch des Kauṭalya (Münchner indologische Studien* vol. 2), Wiesbaden, 1960.

——: "Die Beziehungen zwischen Kāmasūtra und Arthaśāstra", *ZDMG 116*, 1966, p. 291 ff.

Winternitz, M.: *Geschichte der indischen Litteratur*, vol. 3, Leipzig, 1920.

——: "*Suruṅgā* and the *Kauṭilīya Arthaśāstra*", *IHQ 1*, 1925, p. 429 ff.

B. *Statistical Studies of Style and Authorship*

Ellegarde, Alvar: *Who Was Junius?*, Stockholm, 1962.

——: *The Junius Letters, 1769-1772*, Göteborg, 1962.

Morton, A. Q.: "The Authorship of Greek Prose", *Journal of the Royal Statistical Society*, Series A *128*, 1965, p. 169 ff.

Mosteller, Frederick and David L. Wallace: "Inference in an Authorship Problem", *Journal of the American Statistical Association 58*, 1963, p. 275 ff.

——: *Methods of Inference Applied to the Federalist*, Reading, Mass., forthcoming.

Van Nooten, Barend A: "The Śloka in the Sabhāparvan", unpublished.

——: "Redundancy in Mahābhārata Verse Composition", *JAOS 89*, 1969, p. 50 ff.

Smith, R. Morton: "The Story of Ambā in the Mahābhārata", *Adyar Library Bulletin 19*, 1955.

——: "The Story of Nala in the Mahābhārata", *Journal of the Oriental Institute, Baroda 9*, 1960, p. 357 ff.

——: "The Story of Śakuntalā in the Mahābhārata", *Journal of the Bihar Research Society 46*, 1960, p. 163 ff.

——: "Statistics of the Bhagavadgītā", unpublished.

Wake, William C.: *Greek Medicine in the 5th and 6th Centuries B.C.*, M. Sc. Dissertation, London, 1946.

——: *The Corpus Hippocraticum*, Ph. D. Thesis, London, 1951.

Yule, G. Udney: "On Sentence-Length as a Statistical Characteristic of Style in Prose: With Application to Two Cases of Disputed Authorship", *Biometrika 20*, 1939, p. 363 ff.

——: *The Statistical Study of Literary Vocabulary*, Cambridge, 1944.

C. *Other Works*

Ardha-Magadhi Dictionary, An Illustrated, ed. Shataudhani The Jaina Muni Shri Ratnachandraji, 5 vols., Dhanamandi, Ajmer, 1923 ff.

Bailey, H. W.: "Hārahūṇa", p. 12 ff. in *Asiatica: Festschrift Friedrich Weller*, Leipzig, 1954.

Bareau, André: *Les sectes bouddhiques du Petit Véhicule (Publications de l'École Française d'Extrême-Orient)*, Saigon, 1955.

Bernhard, Franz, H. Reul, F. Schulte-Tigges and H. Sunkel: "Erstellung von Konkordanzen zu Sanskrittexten durch elektronische Rechenanlagen", *Linguistics 22*, 1966, p. 5 ff.

Biometrika Tables for Statisticians, vol. 1, ed. E.S. Pearson and H. O. Hartley, Cambridge, 1954.

Bloomfield, Maurice: "The Dohada or Craving of Pregnant Women: A Motif of Hindu Fiction", *JAOS 40*, 1920, p. 1 ff.

Bühler, Georg: *Indische Palaeographie* (*Grundriss der indo-arischen Philologie und Altertumskunde* vol. 2, pt. 2), Berlin, 1896, trans. John Faithfull Fleet, *IA 33*, App., 1904.

Burrow, T.: Review of *A Comparative Dictionary of the Indo-Aryan Language* Fasc. II-XI by R. L. Turner, *JRAS*, 1967, p. 39 ff.

Charpentier, J.: "Some Remarks on the Hindu Drama", *JRAS*, 1923, p. 585 ff.

——: "Date of the Mudrārākṣasa", *IHQ 7*, 1931, p. 629.

Cambridge History of India, vol. 1, ed. E. J. Rapson, Cambridge, 1922, 2nd Indian reprint, Delhi, 1962.

Edgerton, Franklin: "Pañcadivyādhivāsa or Choosing a King by Divine Will", *JAOS 33*, 1913, p. 158 ff.

Eggermont, P. H. L.: *The Chronology of the Reign of Asoka Moriya*, Leiden, 1956.

History of Ceylon, vol. 1, pt. 1, ed. H. C. Ray, Colombo, 1959.

Jayaswal, Kashi Prasad: "The Date of the Mudra-Rakshasa and the Identification of Malayaketu", *IA 42*, 1913, p. 265 ff.

——: *Hindu Polity*: A Constitutional History of India in Hindu Times, 3rd enl. ed., Bangalore, 1955.

Keith, A. Barriedale: *History of Sanskrit Literature*, 2nd ed., Oxford, 1941. Cited as Keith.

Konow, Sten: *Das indische Drama* (*Grundriss der indo-arischen Philologie*, vol. 2, pt. 2D), Berlin and Leipzig, 1920.

Lacôte, Félix: *Essai sur Guṇāḍhya et la Bṛhatkathā*, Paris, 1908. Cited as Lacôte.

Lamotte, Étienne: *Histoire du Bouddhisme indien*, Louvain, 1958.

Lassen, Christian: *Indische Alterthumskunde*, vol. 2 (2nd ed.), Leipzig, 1874, and vol. 3, Leipzig, 1858.

Lévi, Sylvain: "Notes sur l'Inde à l'époque d'Alexandre", *JA 15*, 1890, p. 239 ff.

——: "Alexander and Alexandria in Indian Literature", *IHQ 12*, 1936, p. 121 ff.

MacDowall, David W.: "Numismatic Evidence for the Date of Kaniṣka", p. 134 ff. in A. L. Basham, ed., *Papers on the Date of Kaniṣka*, Leiden, 1968.

Malalasekera, G. P.: *The Pali Literatur of Ceylon* (*Royal Asiatic Society Prize Publication Fund*, vol. 10), London, 1928.

——: *Dictionary of Pāli Proper Names*, 2 vols. (PTS), London, 1937-8. Cited as *DPPN*.

Mayrhofer, Manfred: *Kurzgefasstes etymologisches Wörterbuch des Alt-indischen*, Heidelburg, 1953-.

Meredith, David: "Annius Plocamus: Two Inscriptions from the Berenice Road", *Journal of Roman Studies 43*, 1953, p. 38 ff.

Monier-Williams, Monier: *A Sanskrit-English Dictionary*, Oxford, 1899. Cited as *MW*.

Moroney, M. J.: *Facts from Figures*, 3rd ed., Harmondsworth, 1956.

Müller, F. Max: *A History of Ancient Sanskrit Literature*, London, 1859.

Van Nooten, Barend A.: "A Mechanical Concordance for a Sanskrit Work", *JAOS 85*, 1965, p. 55 ff.

Pachow, W.: "A Study of the Dotted Record", *JAOS 85*, 1965, p. 342 ff.

Pathak, Pt. Shridharashastri and Pt. Siddeshvarahastri Chitrao: *Word Index to Patañjali's Vyākaraṇa Mahābhāṣya (Vyākaraṇa-Mahābhāṣya-Śabdakośa)* (Bhandarkar Oriental Research Institute), Poona, 1927.

Pearson, Lionel: *The Lost Histories of Alexander the Great (American Philo-logical Monographs* no. 20), New York and Oxford, 1960.

Pirenne, Jacqueline: "Un Problème-clef pour la chronologie de l'Orient: la date du 'Périple de la Mer Érythrée' ", *JA 249*, 1961, p. 441 ff.

Raychaudhuri, Hemachandra: *Political History of Ancient India*, 6th ed., Calcutta, 1953. Cited as *PHAI*.

Rhys Davids, T. W., and William Stede: *The Pali Text Society's Pali-English Dictionary*, Chipstead, Surrey, 1925. Cited as PTS Dict.

Robinson, Charles Alexander, Jr.: *The Ephemerides of Alexander's Expedi-tion (Brown University Studies* no. 1), Providence, 1932.

———: *Alexander the Great*, New York, 1949.

Sahni, Rai Bahadur Daya Ram: "A Sunga Inscription from Ayodhya", *Epigraphia Indica 20*, 1929-30, p. 54 ff.

Schachermeyr, Fritz: "Alexander und die Ganges-Länder", ch. 7 in *Alex-ander the Great*: *The Main Problems*, ed. G. T. Griffith, Cambridge and New York, 1966. Reprinted from *Innsbrucker Beiträge zur Kultur-geschichte 3*, 1955, p. 123 ff.

Sewell, Robert: "Roman Coins Found in India", *JRAS* 1904, p. 591 ff.

Sircar, Dinesh Chandra: *Studies in Indian Coins*, Delhi, 1968.

Srikantha Sastri, S.: "Date of the Mudrā-rākṣasa", *IHQ 7*, 1931, p. 163 ff.

Tarn, W. W.: "Alexander and the Ganges", *Journal of Hellenic Studies 43*, 1923, p. 93 ff.

———: *Alexander the Great*, 2 vols., Cambridge, 1948.

———: *The Greeks in Bactria and India*, 2nd ed., Cambridge, 1951.

Thompson, Stith: *Motif Index of Folk Literature*, rev. ed., Copenhagen and Bloomington, 1955.

——— and Jonas Balys: *Motif and Type Index of the Oral Tales of India (Indiana University Publications, Folklore Series* no. 10), Bloomington, 1958.

Winternitz, M.: *History of Indian Literature*, vol. 2, trans. Mrs. S. Ketkar and Miss H. Kohn and rev. by the author, Calcutta, 1933.

Wheeler, R. E. M.: *Rome Beyond the Imperial Frontiers*, London, 1954.

—— *et al.*: "Arikamedu: An Indo-Roman Trading-Station on the East Coast of India", *Ancient India 2*, 1946, p. 17 ff.

Vogel, J. Ph.: "Prakrit Inscriptions from a Buddhist Site at Nagarjuni-konda", *Epigraphia Indica 20*, 1929-30, p. 1 ff.

Yule, G. Udney and M. G. Kendall: *Introduction to the Theory of Statistics*, 14th ed., London, 1950.

Zinkin, Taya: "Love and Lentils—life with Nizam", *The Guardian*, 25 February, 1967.

INDEX